Volume 162 No. 22

Oil, Paint and Drug Reporter

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Printing Inks Removed From Price Regulation

The Office of Price Stabilization removed printing inks and some ceramic and glass coloring and decorating preparations from price control November 26 because the products do not significantly affect the cost of living or the cost of doing business. The action was taken through issuance of amendment 6 to General Overriding Regulation 3.

OPS found that the requirements of the regulations for calculating ceiling prices for new products are particularly burdensome for this industry. It was estimated that there are 50,000 new ink formulations each month with the average life of a formulation being four months. The proportion of printing inks in the overall cost of printing and publishing is shown by the fact that sales of such inks in 1950 totaled $144,000,000 and this cost was absorbed in the sale of $8,000,000,000 worth of printing and publishing products.

As in the case of printing inks, a large proportion of ceramic and glass coloring and decorating preparations production is custom made. OPS pointed out that the supply of all major materials and most minor materials required in the production of these coloring preparations is adequate to meet current demands.

Exemption of these materials from price control does not affect price control of the basic pigments used in their preparation, OPS said. Only the mixtures of two or more basic pigments which produce the ceramic and glass coloring and decorating preparations are covered by the amendment. OPS said that it is unlikely that the action will materially increase the price level of these commodities. The cost of the colorant represents a very small proportion of the end-products to which they are applied.

Copper Sulphate Export Quota 25,000,000 Pounds

An export quota of 25,000,000 pounds of copper sulphate, or blue vitriol, was established for the fourth quarter of the current year by the Office of International Trade last week.

The quota applies to sulphate produced from copper of domestic origin. Applications for licenses for copper sulphate produced from foreign copper will be considered by OIT outside of this quota.

The agency also announced that the fourth quarter export quota for sulphuric acid has been fixed at 700 short tons. This is on the basis of 100 percent H_2SO_4, and includes all grades of sulphuric acid, including oleum.

Nickel to Remain Under Use Controls Indefinitely

Shortage of nickel in relation to overall requirements will necessitate continuance of distribution controls for an undetermined length of time, the National Production Authority told primary consumers of nickel at a meeting November 25.

NPA officials said that the United States is receiving a major share of the free world nickel supply in the fourth quarter of 1952, and can expect only a little more in the first quarter of next year. Some new production of nickel is expected some time next year, it was stated, but the amount is not known at this time.

The industry was urged by NPA to continue every effort to conserve columbium and cobalt as well as nickel, owing to the essentiality of these alloy materials in the military and atomic energy programs.

Fungicide and LPG Output Spurred by New Tax Aid

Tax certificates permitting rapid acceleration of the costs of expanding production of fungicides and petroleum gases were issued to four concerns during the period November 13 to 19 by the Defense Production Administration, it was announced last week.

The certificate covering fungicide production was issued to Panogen, Inc., and was for new facilities costing $67,220 at Boulder County, Colo. Permission was granted to writeoff 45 percent of the cost of the project at an accelerated rate.

Three certificates covering petroleum gases were issued. One went to the Texas Company for facilities costing $1,060,000 for production of propane, butane and natural gasoline at Scurry County, Tex. Rapid amortization of 65 percent of the cost was allowed.

The second certificate was issued to the Warren Petroleum Corporation for facilities costing $977,400 at Garvin County, Okla., for production of propane, butane and natural gasoline, and allowed 65 percent of the cost to be rapidly amortized. The third certificate went to Lion Oil Company, for LPG-propane facilities at El Dorado, Ark. Accelerated amortization was allowed on 65 percent of $231,930, and 40 percent of $21,042.

Pigment Producers Ask Removal Of 2 Chrome Colors From M-32

The organic and inorganic chemical pigment advisory committee urged the National Production Authority November 25 to remove chrome yellow and chrome orange from the list of chemical materials in schedule A of order M-32. This order provides the method for establishing DO-rated order limitations and lead times. Both materials are in ample supply, it was stated, and no need exists for their continued inclusion in M-32.

At a meeting later with officials of the Office of Price Stabilization, the industry group urged decontrol of their industry from price control as a means of relieving their present "inadequate margin of profit." They said at least 80 percent of their products have been selling below ceiling prices for many months because of the highly competitive market, and there has been no incentive to bring out any new items.

OPS officials said they would take the decontrol plea under advisement. They pointed out that if the margin of profit is inadequate, members of the industry may seek relief under General Overriding Regulations 10 or 29. GOR 10 provides relief for a company or plant which has been unable to break even, and GOR 29 provides special relief for essential manufacturers of essential commodities.

At a meeting of the committee with the NPA, agency officials stated that removal of allocations and end-use controls on tungsten is being considered. Tungsten receipts in the United States have been increasing and supply and requirements appear to be in balance, it was stated. The United States is understood to be obtaining more than half of the free world supply of tungsten. NPA officials indicated that controls on tungsten would be lifted before January.

The supply situation of certain other materials used by the chemical pigment industry was reviewed by NPA as follows:—

Chrome and Chrome Compounds—The principal problem involved is the availability of chemical chromite ores obtained from South Africa. Although other chromite ores can be used, the industry has standardized its production technics on the basis of South African ores. More than ample capacity exists for the processing of these ores.

Molybdenum—Supplies available during 1953 are expected to increase 10 percent over 1952. Allocations are now on a quarterly, rather than a monthly basis.

Selenium—Supplies are short and are expected to become shorter. Present allocations are meeting about 85 percent of requirements. The situation could become critical if selenium is diverted to the defense stockpile.

Toluene—The current supply situation is short-to-critical and no improvement is expected until April of next year when a new producer is scheduled to get into production.

Price Control Study Being Made For President; New Policy Seen

An overall study of prices and price control measures is being made in official quarters at the request of the White House, it was disclosed last week amid a flood of reports that an important announcement concerning government policy on price controls may be forthcoming at an early date. The speculation in Washington was that the period of direct controls over prices may be fast running out. It was based on these factors:—

A statement from Senator Burnett Maybank, of South Carolina, chairman of the senate banking committee, that he understood the President was preparing an executive order to end controls over both wages and prices before the end of the year.

The sudden resignation of Tighe E. Woods as director of the Office of Price Stabilization, with no intimation from the White House or the Office of Defense Mobilization that a successor is being considered.

A report from the joint congressional committee on defense production, reviewing consumer commodity prices and margin spreads, stating that stability has been restored in the economy and indicating that direct controls over prices have served their purpose so that indirect controls could become effective.

A memorandum reported to have been written by Edward F. Phelps, jr., assistant director of OPS, to Economic Stabilizer Roger L. Putnam and Mr. Woods, suggesting the complete suspension from price controls, within ninety days, of all consumer goods, excepting petroleum, and the continuation of ceilings on ten categories of basic materials and industrial goods, along with a suggestion for the dropping of wage controls within the next three months.

White House Denies Report

When the White House was questioned on the statement credited to Senator Maybank, the President's press secretary denied there were plans to do away with price and wage controls. At the same time, it was learned that Economic Stabilizer Roger L. Putnam has recommended that the government's power to control prices and wages be extended fourteen months beyond the present April 30 deadline.

Mr. Woods' resignation was wholly unexpected and appeared to be in protest against the "weak" price control law. Mr. Woods had been battling for a tightening up of conrols at the consumer levels ever since he had been in office, but without success, even within his own organization. It is a known fact that his community price boards found little support within OPS, and much opposition from retail groups.

"All I've done is sign orders increasing prices," Mr. Woods commented in announcing his resignation. "It is apparently very easy to translate cost increases into price

—*Continued on page 94*

Insecticide Export Rules Easing Granted by OIT

Agricultural insecticides containing 25 percent or more DDT may now be exported without individual export licenses, the Office of International Trade announced November 28. Shipments may be made under general license to all areas except the iron curtain countries, Hong Kong and Macao.

OIT said it was taking the action because of the improved supply of DDT. Total demand, both domestic and foreign, for the twelve months beginning October 1, 1952, is expected to be between 125,000,000 and 145,000,000 pounds, while productive capacity is 150,000,000 pounds.

United States production now approximates 8 percent of the world supply of DDT, according to OIT. Foreign production is chiefly in Europe, the leading producers being the United Kingdom, western Germany, the Netherlands and Italy. Completion of proposed plants in Ceylon, Egypt, India and Pakistan will provide limited production in those areas.

OIT said that approximately 36,000,000 pounds of DDT were exported from the United States in 1951 and 23,500,000 pounds in the first nine months of 1952. Future foreign demand for DDT of United States production will depend on the extent of government-sponsored health and sanitation programs, changes in crop acreage, degree of insect infestation, and availability of dollar exchange. However, partly on the basis of the shortage of dollar exchange in many parts of the world, OIT said, it is estimated that exports in the twelve months beginning October 1, 1952, will not exceed 55,000,000 to 60,000,000 pounds. Total domestic demand in the same period is expected to be 70,000,000 to 85,000,00 pounds.

Methylene Chloride Freed From Allocation Controls

Allocation controls on methylene chloride were dropped November 26 by the National Production Authority. This material had been under allocation since August 29, 1951.

Expanded production by two producers of methylene chloride and a decline in the demand made possible the revocation of schedule 9 to M-45, which provided for allocation of the material, Thomas C. Keeling, jr., director of the chemical division, explained. During July, 1952, allocations were made on a 100 percent basis and since that time all requests have been made in full.

Monthly production increased from 3,200,000 pounds in April, 1952, to 5,140,000 pounds in October. During the same period, requirements declined from 9,683,178 pounds to 4,807,482 pounds. Production has thus shown an increase of 40 percent and requirements a decline of about 50 percent.

Of ten chemicals placed under allocation control through the provisions of M-45, methylene chloride is the ninth to be freed from restrictions. The only chemical remaining under allocation is Thiokol, under schedule 10 of M-45.

Spice, Seed, Herb Imports No Longer Price Controlled

Imported spices, seeds and herbs were removed from price control November 26 by the Office of Price Stabilization. In taking the action, the agency made clear that the exemption applies also to sales of the imported commodities which are blended and packaged after importation.

Controls were removed because imported spices do not enter significantly into the cost of living or business cost and because maintenance of price ceilings would involve administrative difficulties disproportionate to the contribution to price stabilization, OPS explained.

Flaxseed Feeds Ceilings Up By $4 at Process Levels

Ceiling prices at the processor levels for flaxseed feed products were increased by $4 a ton at all producing points by the Office of Price Stabilization November 26.

The new ceiling prices for major flaxseed feed products at Minneapolis, Minn., will be as follows:—Oil meal or cake, standard protein content of 32 percent, $82 a ton; sized cake, pellets or cubes, 32 percent protein content, $84.25 a ton; linseed feed, 30 percent protein content, $77 a ton; flaxseed screenings oil feed, 22 percent protein content, $64 a ton.

Authorized differentials provided for other points of production will be continued. OPS said that the increase in ceiling prices takes account of the prospective supply of flaxseed feed products, the demand pattern for flaxseed feeds compared to that of other feeds, and processing margins.

Ammonium Sulphate Contract Awarded to New York Firm

Chemdye, Inc., New York, has been awarded a contract for furnishing 26,750 long tons of ammonium sulphate to India under the technical assistance program, at a price of $50.33 a ton, c. and f. Madras and Bombay, India, it was announced last week by the General Services Administration. The award was made under a bid opening held November 12. Chemdye named Japan as the source of the material it will ship under the contract.

Peanut World Output Hits Seven-Year Low

World production of peanuts in 1952 is forecast at 10,200,000 short tons on the basis of preliminary estimates available to the Office of Foreign Agricultural Relations, it was stated last week. While this volume of production would represent a drop of only one percent from 1951, it would be the smallest outturn since 1945.

The expected decline is due largely to the fact that losses foreseen for the United States, China, French West Africa and British West Africa total 130,000 tons more than the gain forecast for India—the one major producing area reporting an increase in production, the agency said.

World totals for 1950 and 1951 have been revised downward in keeping with revisions for China for which new information has been received for these years.

OFAR said that North American peanut production in 1952 is down about one-fourth from 1951, principally the result of the sharp decline in the United States, which had the smallest peanut crop since 1939. Production in the United States this year is estimated at 631,400 short tons, a decline of 207,000 tons under 1951, which dropped this country from third to fifth in the position of world production.

An increase of some 190,000 tons is expected in Asia as India's crop of 3,696,000 tons is about 10 percent above 1951, while China's output is believed to be down about 110,000 tons to a total of 2,370,000 tons.

Eisenhower Names Four Additional Cabinet Officers

President-elect Dwight D. Eisenhower last week named four more cabinet officers. Herbert Brownell, a New York lawyer and a key man in Gen. Eisenhower's strategy board during the recent political campaign, was picked as Attorney General. To be Secretary of Agriculture, Gen. Eisenhower selected Ezra T. Benson, former official of the National Council of Farmer Co-operatives. George M. Humphrey, president of M. A. Hanna Company, Cleveland, Ohio, was appointed Secretary of the Treasury, and Arthur E. Summerfield, Republican national chairman and an automobile dealer in Flint, Mich., was named Postmaster General.

Harold E. Stassen, three-time governor of Minnesota and current president of the University of Pennsylvania, was selected to head up the Mutual Security Agency. Mrs. Oveta Culp Hobby, co-publisher of the Houston (Tex.) Post and wartime commander of the Woman's Army Corps, was appointed administrator of the Federal Security Agency. In announcing Mrs. Hobby's appointment, Gen. Eisenhower said he had asked the new FSA head to sit in on meetings of the cabinet "in her vitally important position as administrator."

As deputy Attorney General, the President-elect made William P. Rogers, who served as chief counsel of the senate war investigating committee in 1947. Mrs. Ivy Baker Priest, assistant chairman of the Republican national committee and national committeewoman for Utah, was named Treasurer of the United States. Gov. Sherman Adams of New Hampshire was picked as assistant to the President, a post comparable to that held now by John R. Steelman in the Truman administration.

Int'l Minerals Has New Ore Beneficiation Process

The development of a new and revolutionary ore beneficiation process applicable to potash and phosphate as well as to many other types of ores, has been announced by Louis Ware, president of International Minerals & Chemical Corporation, Chicago.

"This new process results in a great economy in comparison with any other present methods. The process which uses neither re-agents nor water, but is a dry beneficiation method, has been named the LeBaron-Lawver Process," Mr. Ware said.

The new method of refining ore was developed under the dirction of Dr. Paul D. V. Manning, International's vice-president in charge of research, and Dr. I. M. LeBaron, director of International's research laboratories. Also associated in the project were James E. Lawver and others on the corporation's research staff.

Mr. Ware also announced that International will immediately build a new and larger pilot plant at the present Carlsbad, N. M., refinery to operate continuously treating semi-commercial quantities of potash by means of the new method. Plans also are now being developed for another shaft and mine on International's new ore body in the Carlsbad basin.

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Alumina Chemicals Output Planned by Alcoa in Ark.

Aluminum Ore Company, a subsidiary of Aluminum Company of America, Pittsburgh, Pa., has announced plans for a proposed major addition to its new alumina works at Bauxite, Ark., which would provide for the production of finished chemical products from alumina processed from bauxite mined in Arkansas. The parent company, meanwhile, has announced that production has started up at its new aluminum smelting plant at Rockdale, Tex.

The Bauxite chemicals unit is expected to cost in excess of $5,000,000. Production from the first units built will go to consumers engaged directly in defense work. As new markets develop, added production capacity will be added to help meet them, the company said. Grading of the land for initial units at the new plant could begin sometime next spring, depending on how quickly various government authorizations can be obtained, it was said. Actual date for start of production is also contingent upon the authorizations. Site for the new chemicals plant is adjacent to the alumina works which went into continuous production in October and which reaches its full capacity early next year.

When completed, Alcoa's installation at Rockdale will include a smelting plant with four potlines; a plant for the manufacture of carbon electrodes required in the electrolytic aluminum producing process; a power plant, and facilities for mining lignite. Operations at present are from the first potline. The second potline is due for completion and ready for production early this month. The third and fourth units are scheduled for completion next spring, but will not be put into operation until the fall of 1953 when a new power plant will be ready for operation.

Monsanto, French Firm Form Plastics Company

Monsanto Chemical Company, St. Louis, Mo., has announced the formation of a new jointly-owned French company in association with Compagnies Reunies des Glaces & Verres Speciaux de la France.

The new company, La Societe Monsanto-Boussois, S. A., will produce plastic materials, including polystyrene molding compounds which will be manufactured under processes owned by Monsanto and developed by its plastics division at Springfield, Mass. Engineering will start immediately and construction will follow at Wingles, near Lens, France, the site of an existing glass manufacturing plant owned by the French parent company. Operations will start prior to mid-1953.

US to Request duPont Antitrust Trial Delay

The government will ask for a continuance of the trial of its antitrust suit against 117 members of the duPont family, E. I. duPont de Nemours & Co. and five other corporations until January 5. The request will be made today when the trial resumes in Chicago's federal district court following a five-day recess for the Thanksgiving holiday.

Announcement that the government would take the action came from Victor H. Kramer, special assistant to the Attorney General, on November 25. The delay is being sought because of the illness of Willis L. Hotchkiss, chief prosecutor.

Next step in the trial is the presentation of the government's arguments. Defense attorneys concluded a series of five opening statements before the recess. At the outset of the case, on November 18. Mr. Hotchkiss gave a four-hour outline of his case.

Dewey & Almy Elects Hugh Ferguson President

The Dewey & Almy Chemical Company, Cambridge, Mass., has elected Hugh S. Ferguson to take office as president and chief executive officer of the company on January 1, 1953, when Bradley Dewey, who has been president since the company was founded in 1919, retires from that office under the provisions of the company's retirement plan. Mr. Dewey has been elected chairman of the board of directors.

Girdler Corp. Starts New Activated Carbon Plant

The Girdler Corporation, Louisville, Ky., has started operation of a new plant for the production of activated carbon from hardwood char. The plant includes several new developments that are a part of a continuous process for the manufacture of several types of activated carbon. Girdler is now planning to erect a completely new catalyst plant. It will be adjacent to the new activated carbon plant.

Tubular Goods Meeting Set

Representatives of twenty-five oil and gas producers' associations have been invited to meet with officials of the Petroleum Administration for Defense at Washington on December 8 to discuss the desirability and feasibility of decontrolling oil country tubular goods.

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Price Index Down Again

The OPD price index continued its decline last week with a drop of 0.20 point. As in the week previous, the oils, fats and waxes section was primarily influential in bringing about the downward trend. Predominant among items reduced in this market were tallow, crude African beeswax and cottonseed foots, palm and tung oils. Advances in this market included linseed meal, carnauba wax and peanut and soybean oils.

Another market to continue a downward trend was essential oils. Reductions here included methyl ionone, vanillin, ex eugenol and vetiver, coriander, grapefruit and Dalmatian sage oils. Among items advanced in this market were Bourbon-type geranium and clove oils. The weight of price change in the botanical drugs market was upward, but the most important movements were reductions. Among the latter were ergot, copaiba and tolu balsams, Czech anise, Guatemalan decorticated cardamom, Iranian and Turkish cumin and African and No. 3 Jamaica ginger root. Advances included Canadian fir balsam, Syrian anise seed and Zanzibar clove.

The heavy chemicals market featured an advance in quicksilver and a decline in lead metal. These price movements were reflected in the protective coatings materials market with an advance in red, vermilion quicksilver and reductions in red lead, litharge, orange mineral and lead monosilicate.

In the coal chemicals market there was an advance in denaturing pyridin. Textile and leather chemicals featured a reduction in egg yolk. There was no price activity in the drugs and fine chemicals, petroleum derivatives or agricultural chemicals markets.

Except for twenty-five changes in botanicals listed on page 65 price changes during the past week were as follows (the numbers in parentheses after changes indicate the pages on which the market reports will be found):—

Prices Advanced

Linseed meal, $4 per ton (88).
Oil, birchtar, crude, 20c. per lb. (67).
rectified, 10c. per lb.
Caraway, 10c. per lb. (67).
Clove, $1 per lb. (67).
Fish, refined, ½c. per lb. (88).
Geranium, Bourbon, $1.50 per lb. (67).
Oiticica, 1c. to 1½c. per lb. (88).
Peanut, crude, 1c. per lb. (88).
ref., 1c. per lb.
Soybean, crude, ¼c. per lb. (88).
ref., ¼c. per lb.
Pyridin, denaturing, 15c. per gal. (50).
Quicksilver, $6 per flask (40).
Red, vermilion, quicksilver, 5c. per lb. (85).
Wax, carnauba, 1c. to 2c. per lb. (88).

Prices Reduced

Egg yolk, 3c. per lb. (49).
Greases, ¼c. per lb. (88).
Ionone, methyl, 3c. per lb. (67).
Lead metal, ¼c. per lb. (40).
Monosilicate, ¼c. per lb. (85).
Red, 95%, ¼c. per lb. (85).
97%, ¼c. per lb.
98%, ¼c. per lb.
Litharge, ¼c. per lb. (85).
Oil, cedarwood, 2c. per lb. (67).
Coconut, crude, ½c. per lb. (88).
Coriander, 50c. per lb. (67).
Cottonseed foots, 95%, ¼c. per lb. (88).
50%, ½c. per lb.
Grapefruit, 25c. per lb. (67).
Lemon, Messina, 25c. per lb. (67).
Lignaloe wood, 60c. per lb. (67).
Lime, distilled, Mexican, 50c. per lb. (67).
Mace, 55c. per lb. (67).
Nutmeg, West Indian, 20c. per lb. (67).
Palm, ½c. per lb. (88).
Palm kernel, ½c. per lb. (88).
Peppermint, natural, 45c. per lb. (67).
redistilled, 45c. per lb.
Rue, 55c per lb. (67).
Sage, Dalmatian, 65c. per lb. (67).
Tung, ½c. per lb. (88).
Vetiver, Bourbon, $2 per lb. (67).
Oleo stearine, ¼c. per lb. (88).
Orange mineral, ¼c. per lb. (85).
Tallow, ¼c. per lb. (88).
Vanillin, ex eugenol, 25c. per lb. (67).
Wax, bees, African, crude, 2c. per lb. (88).

OPD Price Index

The OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:—

(100=1949 average)

November 28, 1952	November 21, 1952	November 30, 1951
109.24	109.44	115.52

Chas. Huisking to Produce DuPont Camphor Tablets

Arrangements have been completed between E. I. duPont de Nemours & Co., Wilmington, Del., and Chas. L. Huisking & Co., New York, by which the latter company will take over the production of duPont camphor tablets, which are now being manufactured at duPont's Chambers Works, Deepwater Point, N. J., it has been announced. The process, machinery, etc., have been purchased by Huisking, and will be installed at its plant in Brooklyn. Production is expected to begin before the end of the year.

DuPont's USP camphor powder and tablets have been distributed by Huisking and the chemical division of McKesson & Robbins, Inc., and this arrangement will continue on both tablets and powder, it was reported.

Naval Stores Report Issued for Apr.-Sept.

Production of gum and wood turpentine in the United States during April-September of this year totaled 331,000 barrels, compared with 388,480 barrels in the corresponding half-yearly period of 1951, the Bureau of Agricultural Economics has reported in its first compilation of naval stores statistics since putting them on a semi-annual basis. Previously, the reports appeared on a quarterly basis, the last such statement coming out in June (OPD, 6/30/52). Stocks for April-September were 214,640 barrels, as opposed to 179,300 barrels on hand as of September 30, 1951.

Production of gum and wood rosin for the half-year totaled 948,760 drums, compared with 1,149,390 drums in the 1951 period. Stocks on September 30, 1952, amounted to 904,650 drums, compared with 665,530 drums at the close of September of the previous year.

Details of the naval stores supply, demand and stocks in April-September of 1952 are as follows:—

Supply and Distribution

	Turpentine barrels (50 gals.)	Rosin drums (520 lbs.)
Carryover, April 1	194,450	722,580
Production	331,000	948,760
Imports	11,173	1,916
Supply	536,623	1,673,256
Carryover, September 30	214,640	904,650
Exports	49,179	189,285
Apparent consumption	272,806	579,321
Production		
Gum	154,940	422,710
Wood	176,000	[1]526,050
Steam-distilled	84,180	....
Destructively-distilled	1,420	....
Sulphate	90,460	....
Consumption by Industries*		
Adhesives and plastics	55	9,974
Asphaltic products		615
Chemicals and pharmaceuticals	94,968	139,994
Ester gum and synthetic resins	17	122,049
Foundries and foundry supplies	122	1,055
Insecticide and disinfectants	11	1,139
Linoleum and floorcovering	..	15,400
Oils and greases	46	6,339
Paint, varnish and lacquer	4,470	39,232
Paper and paper size	.	192,296
Printing ink	51	2,619
Railroads and shipyards	3,145	4,517
Rubber	158	16,946
Shoe polish and shoe materials	1,120	2,068
Soap	.	24,566
Other industries	134	1,443
Total industrial reported	104,297	582,252
Carryover Locations		
Production and southern concentration points	129,730	814,330
Gum stills	62,980	628,520
Wood plants	66,750	185,810
Industrial plants	47,430	82,530
Distribution points	37,480	7,790
Central	18,930	3,830
Eastern	14,900	2,830
Western	3,650	1,030

Miscellaneous Production

	Barrels (50 gals.)
Dipentene	17,610
Pine oil	69,970
Pinetar	44,690
Other monocyclic hydrocarbons	21,760
Rosin oil	13,060

* Rosin figures include "B wood resin" produced in refining FF wood rosin to paler grades.
[1]South Carolina and Mississippi.

Imperial Paper Adds to Bd.

N. W. Putnam, general sales manager of the color division of Imperial Paper & Color Corporation, Glens Falls, N. Y., has been elected to the board of directors. Mr. Putnam became associated with Imperial in 1927 in a sales capacity.

P.A.'s-Eye View of Business

Composite view, November 30, of purchasing agents composing the Business Survey Committee of the National Association of Purchasing Agents.

Purchasing agents find industrial business maintaining the high rate of the past two months, and believe it will continue through the first quarter of 1953. Back orders are high, though not growing as fast, and production is paralleling the order pattern, a normal condition that has been absent during the inflationary spasms following the outbreak in Korea. Domestic prices tend to more stability; there are conflicting pressures, with foreign weakness having considerable effect on our prices. Inventories are in better shape and are rapidly conforming to operating levels. Employment remains high, with defense work coming out of the tooling stage and reaching production lines. Labor unrest is abating. Buying policy is conservative, as material availability improves.

The consensus of purchasing executives is that the election has, as yet, had no appreciable impact on orders, production or prices. The principal effect has been psychological; for, there is greater confidence that inflationary pressures will decline, prices and materials will be decontrolled, permitting realistic supply and demand forces to operate. Several reports indicate pigeon-holed expansion and new product plans are being dusted off and reviewed.

Commodity Prices

Industrial commodity prices had a more pronounced tendency to hold the line and stabilize in November. The influence of foreign markets, which have been generally weak, has caused a very conservative view to be taken on the future price structure of some materials. This, coupled with capacity production, liquidation of excess inventory and keen competition, indicates the trend to a buyers' market continued through November. Buyers believe the pressure on prices will be more down than up over the next few months.

Inventories

The general policy to reduce unworked material inventories still prevails, and reports indicate that many have reached normal working levels, with improved balance. With delivery promises more dependable, warehouse items in easing supply, and growing competition, there is no urgency to stock beyond delivery lead time and scheduled requirements.

Employment

Full employment is generally reported over the country. Additions to pay rolls are only slightly under last month and would be higher if skilled workers were available in many areas. Defense employment is up, as many projects move from the development and tooling stage into production. Catching up production lost by the steel strike, and seasonal demands, are helping to maintain high employment levels. Labor unrest is diminishing.

Buying Policy

Purchasers for industry still hold within a ninety-day range for most of their buying. In the past two months, there has been a gradual increase from thirty-sixty days to a sixty-ninety days policy. Inflationary pressures have abated; inventory maladjustments are ironing out, and a normal flow of materials is developing.

Specific Commodity Changes

No drastic movement up or down this month. Pass-through authorizations of cost increases continue to show up in new price quotations, but are somewhat tem-

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Allied Chemical Enters Synthetic Fibers Field

Allied Chemical & Dye Corporation, New York, has announced its entry into the field of man-made fibers through the construction of a plant for the manufacture of a synthetic fiber of the polyamide (nylon) type. Allied's National Aniline Division will erect and operate the new facilities and market the product.

All facilities will be located in the Hopewell, Va., area. A site of approximately 600 acres, in the "Bermuda Hundred" section of Chesterfield County has been optioned. Fiber production is planned for this site. Raw materials processing will be conducted on a site already owned adjacent to the Hopewell plant of Allied's nitrogen division.

The fiber is a high molecular weight polyamide belonging to the class known generically as nylons. Processes for its production and for the necessary new chemical raw materials were developed at Allied's central research laboratory. Projected annual production of facilities to be installed at this time is 20,000,000 pounds, which will be offered both as staple and as continuous filament yarn. Production of certain polymer grades in suitable form for molding into plastics is also visualized. Initial production from the facilities is expected in about two years, it was reported. J. J. Rieck, located at the National Aniline Division offices in New York, will be in direct charge of the project.

Monsanto Set to Produce Improved MCP Herbicide

Monsanto Chemical Company, St. Louis, Mo., this month will begin commercial production of an improved MCP herbicide containing 90 percent of 2-methyl-4-chlorophenoxyacetic acid, its most active isomer, the company has announced.

At the same time, A. T. Loeffler, director of development for the company's organic chemicals division, said that the price of the improved product, called "MCP-90" represents a lower net cost to formulators on an active ingredient basis.

Because of the small percentage of less active isomers, Mr. Loeffler said, the new product will reduce waste of valuable materials in the formulation of the ester or salt forms of the herbicide. Precipitation in hard water, due to impurities, is virtually eliminated. "MCP-90," a hormone-type weed killer, is similar to 2,4-D in mode of action, it was reported. However, it is better tolerated by flax, various grasses, cereal crops and legumes and is effective in the control of such grain pests as Canada thistle and deep-rooted perennials. A technical bulletin describing the new product is available from the company on request.

Grace & Co. Plans Offer To Buy Davison Assets

W. R. Grace & Co., New York, is planning to submit an offer "for all or substantially all" of the assets of Davison Chemical Corporation, Baltimore, Md., within the next three months, it was disclosed in a prospectus filed with the Securities and Exchange Commission in connection with a forthcoming offering of $160,666 new shares of Davison common stock to current holders.

W. R. Grace now owns 121,400 shares of the 642,667 shares of Davison common stock outstanding. It also owns 24,280 shares of Davison's 128,533 class A preferred stock. The Grace offer, if made, would be subject to the approval of Davison's stockholders. Appraisal of relative values and legal obstacles make it nearly impossible to submit any terms for Davison stockholder action before next July 1, it was said.

The Davison offering now being registered would be on the basis of one new share for each four held, with today the likely record date.

Washington Talks It Over

By Ralph L. Cherry

The National Labor Relations Board has just issued an important ruling in the matter of slow-downs by union workers seeking to gain an advantage in their negotiations with employers. The board says that slow-downs are improper and employers do not have to bargain with workers who engage in this practice. It was the first time that this question had come up for decision.

The ruling was made in a case brought against the Phelps Dodge Copper Products Corporation by Local No. 441 of the International Union of Electrical Workers (CIO). The practice of unions to engage in slow-downs, however, has become widespread, and thus the decision of the board has broader application than just this isolated case.

The employer's normal duty to bargain in the present case was suspended for the duration of the slow-down, the board found, because the union's calling of the slow-down constituted "an absence of fair dealing" which precluded testing the employer's own good faith. The board termed the slow-down "a harassing tactic irreconcilable with the act's requirement of reasoned discussion in a background of balanced bargaining relations upon which good faith bargaining must rest."

The board has held in a prior case that an employer could lawfully discharge employees who engage in slow-downs. In the present case, the board goes further and says in effect that not only may the employer discharge workers who engage in this practice, but he does not even have to talk to the employees agent during the slow-down.

Ammunition Use in Korea

The Defense department recently issued a fact sheet on rates of ammunition expenditures in the Korean campaign and in World War II which gives emphasis to the heavy reliance being placed upon air warfare in Korea.

The total tonnage of bombs dropped by the navy and marine aircraft on target during the two years of Korea almost equals the total expended during the entire World War II. The total number of rockets expended in Korea by these services already exceeds World War II totals, since rockets came into prominence rather late in World War II.

The air force, during the first two years of Korea, expended twice as much aircraft ammunition as during the first two years of World War II in all theatres; bomb tonnage dropped was one and three-quarter times as much. During the first two years of the Korean action a comparatively small inventory of B-29's has dropped three-fourths the bomb tonnage that was dropped on Japan by B-29's of the twentieth air force during the four-

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Dr. C. A. Thomas Wins Perkin Medal for 1953

Dr. Charles A. Thomas, president of Monsanto Chemical Company, St. Louis, Mo., and chairman of the board of directors of the American Chemical Society, has been chosen to receive the Perkin medal of the American section of the Society of Chemical Industry for 1953. The announcement was made last week by Robert C. Swain, chairman of the jury of

Dr. Charles A. Thomas

award and vice-president of American Cyanamid Company, New York.

The 1953 award will be the forty-seventh impression of the Perkin medal, that is bestowed for outstanding achievement in applied chemistry. Presentation of the medal to Dr. Thomas will be made at a meeting of the American section of SCI, to be held at the Waldorf-Astoria hotel, New York, on January 16.

Dr. Thomas is being honored for outstanding contributions to many phases of industrial chemical development, including the atomic energy program; several phases of the pioneer development and general utilization of anti-knock, high compression fuels for internal combustion engines; important contributions to knowledge of the chemical reactions of hydrocarbons in the presence of catalysts, particularly aluminum chloride; synthesis of resins and other useful products from petroleum and its byproducts; fire fighting devices and methods; as well as for his

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ACTH in Pure Form Isolated By Armour Laboratories

The isolation of pure adrenocorticotrophic hormone (ACTH) has been announced by F. W. Specht, president of Armour & Co., Chicago.

The feat was achieved, Mr. Specht said, by a team of half a dozen chemists in the Armour Laboratories division who have worked for more than three years to overcome the numerous obstacles involved.

Samples of the pure material have been distributed recently to clinics for testing, Mr. Specht said. Preliminary reports indicate that its effects are the same as those of HP Acthar Gel, the highly purified long-acting gel form which was recently introduced and in which Armour ACTH is now mainly marketed.

Pure ACTH is described as a white powder, soluble in water. It is a protein with a molecular weight of about 3,500, much smaller than originally estimated, and appears to consist essentially of a single chain of amino acids. It has 150 to 200 potency units per miligram. As with most proteins, there is little chance of synthesizing it, it was reported.

Mr. Specht said that, in addition to providing a firm standard against which to measure therapeutic preparations of ACTH, the pure substance opens the way to research on the underlying mechanisms by which the hormone exercises its effects in protecting against the shock of disease, poisoning or other damage to body cells. Because its therapeutic effects are exactly the same as Armour's currently marketed ACTH, the pure product will not be put on the market, but will be made available for research, the announcement said.

Sheffield Chemical Div. Sales Post to Sheridan

Sheffield Farms Company has announced the appointment of James D. Sheridan as sales manager of its chemical division. Mr. Sheridan will be located at the division's main business office at Norwich, N. Y. Mr. Sheridan joined Sheffield in 1951 as a sales supervisor.

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Association Meetings

American Association for the Advancement of Science, annual meeting, St. Louis, Mo., December 26-31.

American Association of Textile Technologists, annual symposium, Statler hotel, New York, February 3, 1953.

American Drug Manufacturers Association, annual meeting, Boca Raton Club, Boca Raton, Fla., April 13-16, 1953.

American Institute of Chemical Engineers, annual meeting, Cleveland and Carter hotels, Cleveland, Ohio, December 7-10.

American Institute of Chemists; annual meeting, Philadelphia, May 12-13, 1953.

American Pharmaceutical Manufacturers Association, midyear meeting, Waldorf-Astoria hotel, New York, December 8-10; eastern section meetings, Roosevelt hotel, New York, February 2-4, 1953; central section meetings, Edgewater Beach hotel, Chicago, February 9-11, 1953; western section meetings, Los Angeles, February 16-17, 1953; annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., March 30-April 1, 1953.

Association of Soap and Glycerine Producers, annual meeting, Waldorf-Astoria hotel, New York, January 27-29, 1953.

Chemical Market Research Association, Palmer House, Chicago, December 11.

Chemical Specialties Manufacturers Association, annual meeting, New Yorker hotel, New York, December 7-9.

Commercial Chemical Development Association, Statler hotel, Cleveland, Ohio, January 22, 1953; annual meeting, Statler hotel, New York, March 23-24, 1953.

Compressed Gas Association, annual meeting, Waldorf-Astoria hotel, New York, January 26-27.

Drug, Chemical and Allied Trades section of the New York Board of Trade, annual dinner, Waldorf-Astoria hotel, New York, March 5, 1953.

International Magnesium Exposition, Washington National Guard Armory, Washington, D. C., March 31-April 2, 1953.

Manufacturing Chemists Association, air pollution abatement conference, Statler hotel, Detroit, February 26-27, 1953.

National Agricultural Chemicals Association, spring meeting, Jung hotel, New Orleans, La., March 11-13, 1953.

National Drug Trade Conference, annual meeting, Gramercy Park hotel, New York, December 2.

Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, William Pitt hotel, Philadelphia, March 2-6, 1953.

Plant Maintenance Conference, in conjunction with Plant Maintenance Show, Public Auditorium, Cleveland, Ohio, January 19-22, 1953.

Proprietary Association, scientific section—veterinary committee, Biltmore hotel, New York, December 12.

Salesmen's Association of the American Chemical Industry; Christmas party, Waldorf-Astoria hotel, New York, December 10.

Society of the Chemical Industry, American section, Perkin medal presentation, Waldorf-Astoria hotel, New York, January 16.

Society of Cosmetic Chemists, semi-annual meeting, Biltmore hotel, New York, December 11.

Society of Plastics Engineers, annual technical conference, Statler hotel, Boston, January 21-23, 1953.

Southern Paint and Varnish Production Club, annual meeting, Buena Vista hotel, Biloxi, Miss., March 18-21, 1953.

Synthetic Organic Chemical Manufacturers Association, annual business meeting and dinner, Commodore hotel, New York, December 3.

Congress to Get Request For Machine Tool Reserve

Congress will be asked to approve the establishment of a $1,000,000,000 reserve of heavy machine tools and other production facilities to speed increased arms production in event of war, Henry H. Fowler, director of the Office of Defense Mobilization, stated November 26.

He explained that the reserve of tools would cost less than a huge stockpile of arms and would prevent bottlenecks like those that earlier hampered mobilization efforts. The project is to be proposed as part of the military budget next year.

Mr. Fowler said that the machine tool plan is one par' of a broad program to create a "mobilization base" of sufficient productive capacity for arms and other military supplies to permit speedy filling of the country's needs under war conditions.

Compressed Gas Meeting Set

The Compressed Gas Association will hold its fortieth annual meeting January 26 and 27 at the Waldorf-Astoria hotel, New York. Technical sessions will be held on the afternoon of the twenty-sixth and the morning of the twenty-seventh. Committee meetings will take place the morning of January 26, while the annual business meeting will be held the afternoon of January 27.

OPS Exempts Used Bottles

Used glass bottles and containers were exempted from price control in continental United States by the Office of Price Stabilization November 26. The exemption does not apply to sales in the territories and possessions.

MCA Public Relations Program Reported Making Major Strides

Substantial progress has been made in carrying out all phases of the newly-inaugurated, long-range public relations program of the Manufacturing Chemists Association, William H. Ward, MCA board chairman, declared last week. Mr. Ward, who is a vice-president of E. I. duPont de Nemours & Co., made the statement in the course of his report to the association, which held its second semi-annual meeting and winter conference November 25 at the Statler hotel, New York.

Government, education and chemical industry leaders participated in the day-long parley, which consisted of panel discussions on the university contribution to executive development; foreign trade; operation of the business system; principles of labeling; traffic and transportation; accident trends in the chemical industry and the MCA general safety program; case histories and practical aspects of executive development; the International Labor Organization September meeting; technical developments; industry-education cooperation; packaging, and plant safety for small and large chemical plants.

Mr. Ward said that the association now has "an information service for the press which issues news releases on important trends, and answers requests for information about the industry from all types of news services." He went on to say, "An MCA guidance program, designed to interest qualified young people in careers in the chemical industry, has been issued.

Chemical Industry Facts Book

"A chemical industry facts book, which covers general information of the industry, is being compiled and should be ready in March, 1953. A program for speakers bureau will shortly be launched with issuance of a speakers' manual designed for assistance to individuals and member companies in carrying forward their own public relations programs. These activities are being carried out by public relations counsel, in cooperation with the public relations policy committee, the public relations advisory committee, the student guidance committee, and the staff in the Washington office."

In an additional comment on the public relations program, Mr. Ward stated that its primary objective is to achieve "a far better understanding and appreciation of the chemical industry," noting that "through this medium, and with member cooperation, we should be able to convince the general public of the great importance of our industry and that its fine reputation is well deserved."

Defense Mobilization Work Cited

Reporting on the Washington subcommittee of MCA's defense mobilization, the association chairman said that the group's guidance has been very useful, despite "a lessening of demands in most mobilization problems. "The personnel subcommittee," he continued, "has maintained constant liaison with chemical groups in the National Production Authority and the Office of Price Stabilization suggesting qualified personnel to fill important government posts."

Describing the technical committees as "the very heart of the association," Mr. Ward stated that without their work, "the association would be meaningless to a very large degree." He catalogued the activities of the general safety and medical advisory committee, noting, in particular, its issuance of three new safety data sheets and two revisions and its chemical laboratory safety guide, which is nearing completion.

The MCA label and precautionary information committee, the MCA chairman announced, is bringing out a revision of its manual L-1 on warning labels. "On the basis of interest shown by the states of New York, New Jersey, Pennsylvania, Kansas and Utah," he added, "it is quite possible that MCA's recommendations will be adopted as a labeling guide for their regulations."

Air Pollution Activities

He cited the work of the air pollution committee, which has already issued nine of the thirteen chapters of its "Air Pollution Abatement Manual," noting that the group expects to complete the project in the near future and that a continuing bibliography has been started. Both this group and the water pollution abatement committee, he said, "are giving careful consideration and guidance to serve areas in the country where there are special pollution problems."

"It is believed that these forthright steps being taken by the association will foster better public confidence and understanding of the work of the industry, and should go far in counteracting any unwarranted legislative or legal entanglements. This work should eventually achieve the importance and public acceptance now enjoyed by the aforementioned labeling manual," Mr. Ward asserted.

He went on to report on the work of the association in four other fields—plastics, packaging, traffic and transportation, and tariff. The plastics committee, he noted, sponsored a conference on labor-management relations and the President's Materials Policy Commission Report in September, and also has just issued a revised edition of "Technical Data on Plastics." The miscellaneous packages, metal packages and tankcar committee has done studies of many new types of containers.

Increased Tankcar Mileage Rates

Outstanding among the accomplishments of the traffic and transportation unit, he stated, was its obtaining "increased tankcar mileage rates in both Canada and the United States for which it is estimated the annual saving accruing to MCA members approximate an amount ten times that of the current association budget." As for the tariff committee, he reported, the MCA board has enlarged that group.

In order to bring the nation's industrial talents to bear on atomic energy development, Dr. T. Keith Glennan, former member of the Atomic Energy Commission and head of Case Institute of Technology, proposed that a national association of atomic industries be formed to work closely with AEC, the joint congressional committee on atomic energy, and other appropriate government agencies.

"I would propose that the broad aim and purpose of the association be to foster and encourage—subject, of course, to the requirements of national security—the development and utilization of the peaceful application of atomic energy in accordance with the best traditions of the American system of free competitive enterprise," Dr. Glennan said. He advanced the following as three major functions the association might perform:—

"One, it could provide a forum in which the atomic energy industry could arrive at an informed and perhaps a common position on such matters of vital concern to it as the ownership of atomic energy facilities, rights to patents, licensing regulations, health and safety standards, secrecy policies, personnel clearance policies, and contract and tax procedures.

"Two, it could provide a channel thru which industry's position on these matters could be brought to the attention of the Atomic Energy Commission, the congress and the public at large.

"And three, it could provide a mechanism for the acquisition and dissemination throughout industry generally of information on such matters as laws and regulations, business opportunities and new technological developments."

The chemical industry's foresight in anticipating long-term demands and lining up raw materials to produce tomorrow's products will be a necessary policy for all industries during the next twenty-five years, Eric Hodgins, member of the President's Materials Policy Commission, declared. Mr. Hodgins credited the chemical industry's freedom from traditionalism and its active industrial technology as the factors behind its volume production of low-priced goods with such efficiency and so little drain on exhaustible resources.

Problem of Meeting Materials Needs

Material requirements to support the expanding population can be met, but the crux of the problem "lies in rising real costs with an accompanying decline in the standard of living," he said. "We can always scratch harder and harder for materials, but if we fail to get a steadily expanding flow at lower and lower costs per unit, we are in trouble."

Financial managements will do well to recognize in their planning that common equity capital has risen greatly in cost since pre-war years and will probably remain on a high level in the foreseeable future, Roland P. Soule, vice-president in charge of research and planning of the Irving Trust Company, New York, warned the group.

Common equity—in both the form of new common stock and retained earnings—deserve the important position it has held in postwar financing, he said. But even good grade industrial companies now find it nearly six times as expensive as borrowed capital, he said, whereas before the war it cost only twice as much. Some companies must now earn as much as 20 percent on equity-financed projects merely to break even from the stockholders' point of view, he declared.

Many managements might profitably

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CSMA Gives Agenda For Dec. 7-9 Meeting

The Chemical Specialties Manufacturers Association has announced the prelimary program for its thirty-ninth annual meeting, to be held December 7 to 9, at the New Yorker hotel, New York.

The board of governors and committees will meet on the opening day, and at this time registration and the president's reception will be held.

On December 8 there will be concurrent morning sessions of the aerosol; automotive; disinfectant and sanitizers; soap, detergent and sanitary, and the waxes and floor finishes divisions. The aerosol division session will feature a symposium on foam products and a report of the scientific committee. The automotive division session will hear two papers:—"Automotive Degreasing Products," V. M. Mantz, R. M. Hollingshead Corporation; "Why S.A.E. Brake Fluids?" F. J. Markey, Morraine Products Division, General Motors Corporation.

At the disinfectant and sanitizers division session the following papers will be presented: — "Biological and Chemical Properties of 2,2'-Thiobia (4,6-Dichlorophenol)," B. S. Shumard, D. J. Beaver, M. C. Hunter, Monsanto Chemical Company; "Food Plant Sanitation," Eugene J. Gerberg, Insect Control and Research, Inc.; "Disinfectants and Germicides, Antiseptics and Sanitizers—Their Role in Public Health," Dr. Alvin R. Jacobson, Columbia University; "The Part the Quartermaster General Testing Laboratories Plays in Procurement of Disinfectants," Edward F. Williams, Philadelphia Quartermaster Depot, and "Fundamentals of Mildew Prevention," S. S. Block, University of Florida.

Insecticides in Stored Products

At the insecticide division meeting, Marshall Latta, Department of Agriculture, will present a paper on "Use of Insecticides in Stored Products," and Ray L. Cuff, National Livestock Loss Prevention Board, will speak on "New Developments in Livestock Insecticides." A symposium will be held on "Fog Machines for Dispensing Insecticides."

The soap, detergent and sanitary division meeting will feature the following papers:—"Sales Development—Industrial and Consumer," J. V. Miller, Atlas Powder Company; "Stain Removal From Molded Melmac Dinnerware," Fred T. Lanners and Lloyd Dewey, Economics Laboratory, Inc.; Industrial Bottle Washing," Vladimir Dvorkovitz, the Diversey Corporation; "Non-Ionics—the All Surface Cleansers," N. M. Fineman, Rohm & Haas Company; "Dishwashing—Survey of Laboratory Test Methods," J. C. Harris, Monsanto Chemical Company.

At the waxes and floor finishes division session the following papers will be

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Nutrition Conference Opens In Washington December 8

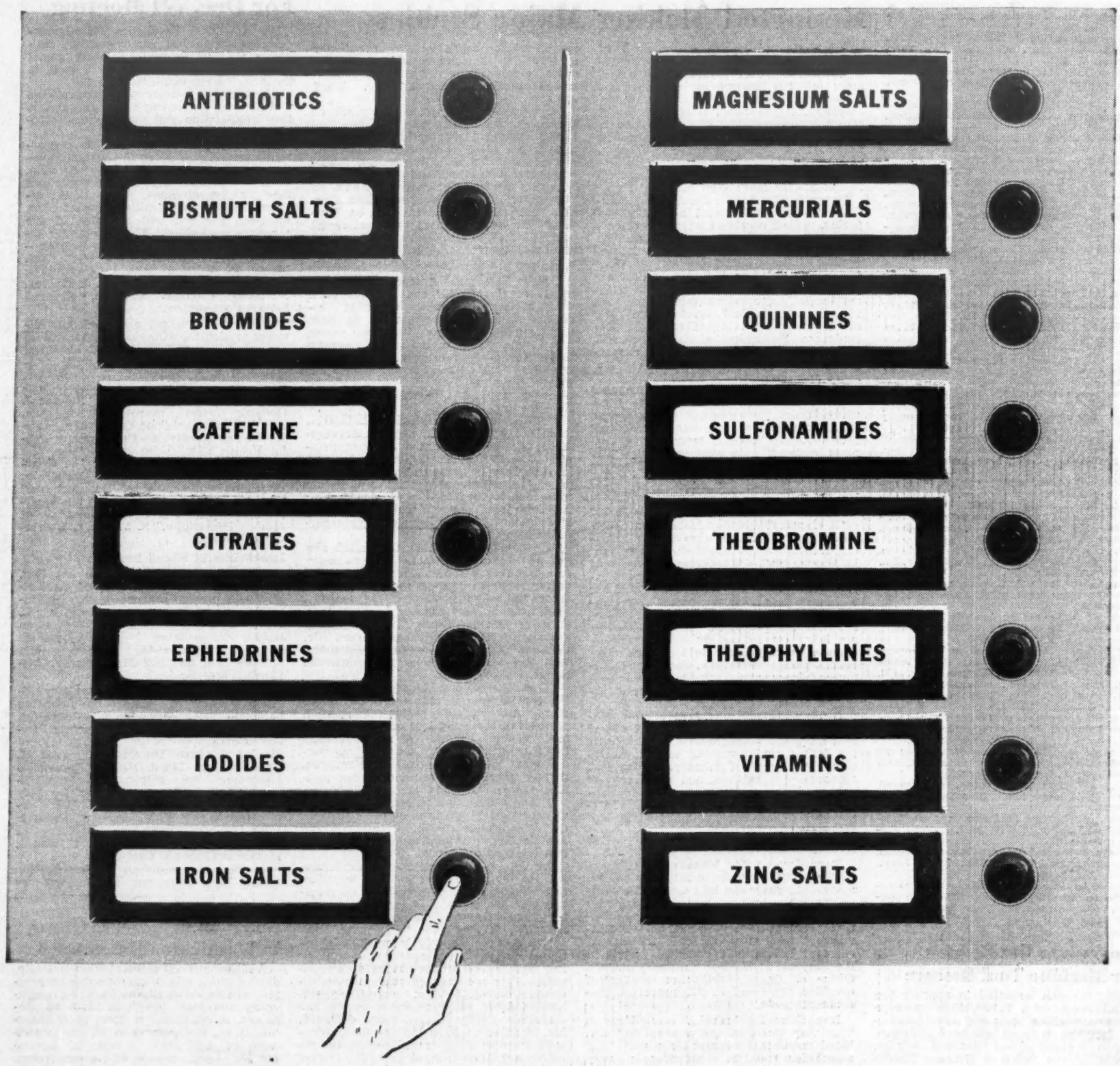
A National Food and Nutrition Institute, during which this country's nutrition progress will be reviewed and ways of strengthening nutrition programs will be discussed, is scheduled to meet in Washington, D. C., December 8 to 10, the Department of Agriculture announced November 25. Joint sponsors of the conference, with the department, are the Public Health Service ad the Interagency Committee on Nutrition Education and School Lunch.

Approximately 400 representatives of government and non-government agencies with responsibilities for various phases of current food and nutrition programs will attend the sessions, in USDA's Jefferson Auditorium. The three-day parley is expected not only to spotlight today's major problems in food and nutrition, but also to provide up-to-date guidance for educators and other leaders in nutrition work.

Topics to be discussed at the conference include food supplies for good nutrition; problems in food distribution that affect nutrition; emergency food planning; achievement of a state of good nutrition for all people; food and nutrition education; nutrition as a factor in disease, and food laws and food protection.

Refractory Ceilings Raised

Ceiling prices for producers of refractory silica cokeoven shapes or brick were increased by the Office of Price Stabilization November 26. The new dollars and cents ceiling prices are about 24 percent above the ceiling prices originally established, or about $22.25 to $22.50 a net ton. This advance includes a 5 percent industry earnings standard increase, which had been previously granted by the agency.



Why it pays to call on Merck

MERCK LEADERSHIP in the field of fine chemicals is built on the long-established confidence of Merck customers . . . on the trust of countless chemical users in the purity and uniformity of Merck products . . . on the know-how acquired through many years of pioneering experience in the manufacture of fine and medicinal chemicals.

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MERCK & CO., INC.
Manufacturing Chemists
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Current Market Quotations

Chemicals and Related Materials

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Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, November 28 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views.

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A

Acacia (see Gum arabic).

Acenaphthene below 92.5 C., m.p., dms. works lb. 40 - —
over 92.5 C., m.p., bbls., dms., works lb. .41 - .50

Acetaldehyde, 99% dms. c.l., frt. equald lb. .1250- .1435
l.c.l., frt. equald lb. .1350- .1535
tanks, frt. equald lb. .1050- .1300

Acetaldol (see Aldol).

Acetanilide, tech., bbls., c.l., divd. lb. .26½- —
l.c.l., ton lots lb. .27½- —
smaller lots lb. .30½- —
USP, bbls., 2,000-lb. lots lb. .61 - —
smaller lots lb. .62 - .67

Acetic, anhydride, dms., c.l., divd. E lb. .16 - —
l.c.l., frt alld E lb. .17½- —
tanks, frt. alld E lb. .14½- —

Acetoacetanilide, fib. dms., c.l. divd. lb. .73 - —
l.c.l., divd lb. .74 - —

Acetoacetorthochloroanilide, fib. dms., c.l., divd lb. 1.14 - 1.22
l.c.l., divd lb. 1.15 - 1.23

Acetoacetorthotoluidide, fib. dms., c.l., divd lb. .78 - —
l.c.l., divd lb. .79 - —

Acetone, CP, dms., c.l., divd lb. .10¼ - .11¼
l.c.l., divd lb. .11 - .12½
tanks, divd lb. .08½- .10

Methyl (see MO).

Acetonitrile, dms., c.l., works lb. .45 - —
l.c.l., works lb. .47 - —

Acetophenetidin USP, bbls., works, frt. equald lb. 1.15 - 1.38

Acetophenone, cns. dms lb. 1.35 - 1.85
tech., dms., l.c.l., works lb. .75 - —

Acetyl (N) para-aminophenol, dms., frt. adjusted lb. 1.50 - 1.60

Acetyltributyl citrate, tech., dms., c.l lb. .37½- —
l.c.l lb. .38½- —
tanks lb. .36 - —

Acetyltriethyl citrate, tech., dms., c.l lb. .37½- —
l.c.l. lb. .38½- —
tanks lb. .36 - —

Acid, abietic, com'l, dms., c.l., works lb. .12 - —
l.c.l., works lb. .1390- —
cryst., dms., c.l., works lb. .06½- —
l.c.l., works lb. .07 - .07½

Acetic, com'l or redist., 28%, bbls 100 lbs. 5.50 - —
56%, bbls 100 lbs. 9.65 - —
70%, bbls 100 lbs. 11.70 - —
80%, bbls 100 lbs. 12.45 - —
glacial, synthetic, CP, dms., works 100 lbs. 15.50 - 16.00
cbys. inclusive, works 100 lbs. 24.00 - 25.00
tech., dms., c.l., works 100 lbs. 10.50 - 12.50
l.c.l., works 100 lbs. 11.00 - 13.50
tanks, works 100 lbs. 9.00 - 11.50
USP, dms. works 100 lbs. 13.50 - 14.50

Acetic anhydride (see Acetic anhydride above).

Acetylsalicylic USP special, bbls., makers, primary distrib., point of ship't, 1000-lb. lots lb. .60 - —
standard, fine, cryst., gran., (30-40 mesh) powd. (80 mesh), bbls same basis, lb. .55 - —

Freight equald, ship't identical quantity over standard routes, from N. Y., Phila., Midland, Mich., Chicago and St. Louis.

Adipic, fib. dms., works lb. .30½- —

Aminoacetic, NF bbls., frt. adjusted lb 1.50 - 1.75

Anthranilic, resub. bbls lb 2.10 - —
tech., bbls., frt equald lb. 1.10 - —

Arsenous, tech (see Arsenic, white).
USP (see Arsenic trioxide).

Ascorbic, USP dms. 25-50 kilo lots kilo. 24.50 - —
10-kilo lots kilo. 24.85 - —
5-kilo lots kilo. 25.25 - —
bots., 1-kilo lots kilo. 25.50 - —
500-gram lots kilo. 26.00 - —

Battery, cbys. c.l., works, E. 100 lbs 2.40 - —
l.c.l., works, E 100 lbs. 2.80 - 8.20

Benzoic, tech., bbls., dms., 100-lb. lots or more lb. .425 - .450
USP, bbls. dms. 100-lb. lots or more lb. .525 - .540

Betahydroxynaphthoic (see Acid, betaoxynaphthoic).

Betaoxynaphthoic, bbls., works lb. 1.14 - —

Boric, tech., 99½% cryst., bgs., c.l., works ton. 120.75 - —
ton lots, ex whse., N. Y. or Chi ton. 166.50 - —
less ton lots same basis, ton. 171.50 - —
bbls., c.l., works ton. 145.25 - —
ton lots, ex whse., N. Y. or Chi ton. 191.00 - —
less ton lots same basis, ton. 196.00 - —
bulk, c.l., works ton. 116.75 - —
gran., bgs., c.l., works ton. 95.75 - —
ton lots, ex whse., N. Y. or Chi ton. 141.50 - —
less ton lots same basis, ton. 146.50 - —
bbls., c.l., works ton. 120.25 - —
ton lots, ex whse., N. Y. or Chi ton. 166.00 - —
less ton lots, same basis, ton. 171.00 - —
bulk, c.l., works ton. 91.75 - —
powd., bgs., c.l., works ton. 100.75 - —
ton lots, ex whse., N. Y. or Chi ton. 146.50 - —
less ton lots same basis, ton. 151.50 - —
bbls., c.l., works ton. 125.25 - —
ton lots, ex whse., N. Y. or Chi ton. 171.00 - —

Acid, boric, powd., bbls., less ton lots, same basis ton. 176.00 - —
bulk, c.l. works ton. 96.75 - —
USP $25 per ton higher.

Broenner's, bbls lb 1.47 - —

Butyric, 99%, dms., c.l., works, lb. .34 - —
l.c.l., works lb. .34½- —
tankcars, works lb. .32½- —

Cacodylic, bots lb 10.50 - 13.00

Camphoric, natural, dms lb 4.00 - 4.75
synth. dms lb 4.00 - 4.75

Capric, 90%, dms lb. .32¼- .33¼

Caprylic, 90%, dms lb. .32¼- .33½

Cassello, dms frt alld lb 1.44 - —

Castor oil, dms lb. .22½- .23

Chicago, bbls frt alld lb .21 - —

Chlorosulphonic, dms., c.l., frt. equald lb .039 - —
l.c.l. frt equald lb .044 - .059
tanks frt equald lb .034 - —

Cholic, 10 to 25-lb. lots, fiber dms. lb. 10.75 - 10.85

Chromic, 99½-99¾%, dms., c.l., works lb. .27 - .27½
l.c.l., works lb. .27½- .28½
NF (see Chromium trioxide)

Cinnamic, refd. bots lb 3.50 - 3.50

Citric, anhyd., gran., fine gran., dms., c.l lb. .26½- —
10,000-lb. lots, 1 ship't. lb. .27 - —
smaller lots lb. .27½- —
kgs. lb. .28½- —
USP, gran. fine gran., dms., c.l lb. .24½- —
10,000-lb. lots, 1 ship't. lb. .25 - —
smaller lots lb. .25½- —
kgs. lb. .26½- —

Anhydrous and USP powdered citric, ½c. per lb. higher.

Cleve's, mixed bis lb. .79 - —

Coconut oil, dist., dms. lb. .21¾- —
tankcars lb. .20 - .20¼
tankcars lb. .20¼- .21½
double dist., dms lb. .22 - .24½

Cottonseed oil, dist., dms lb. .11¼ - .12½
double dist., dms lb. .11¾- .13

Cresylic, coaltar, dom., 50% above 210°C. non-ret. dms., c.l., frt. equald gal. 1.06 - —
l.c.l., same basis gal. 1.09 - —
ret. dms. c.l. same basis gal. 1.06 - —
l.c.l., same basis gal. 1.09 - —
tanks, same basis gal. .95 - —

207° to 210° C., dms., c.l., same basis gal. 1.16 - —
l.c.l., same basis gal. 1.19 - —
tanks, same basis gal. 1.05 - —

204° to 207°C. non-ret. dms., c.l., same basis gal. 1.21 - —
l.c.l., same basis gal. 1.24 - —

Acid, cresylic, coaltar, dom., 204° to 207°C., ret. dms., c.l., same basis gal. 1.21 - —
l.c.l., same basis gal. 1.24 - —
tanks, same basis gal. 1.10 - —
imp., 75% at 215°C. or over, dms., ex whse gal. .85 - 1.00

petroleum, dom 195° to 213°C, non ret. dms., c.l., San Francisco and Los Angeles gal. .71 - —
l.c.l., same basis gal. .73 - .75
tanks, same basis gal. .58 - —

200° C to 222° C, tanks, Wilmington, Cal gal. .58 - .63

211° C to 236° C, non-ret. dms., c.l., San Francisco and Los Angeles gal. .63 - —
l.c.l., same basis gal. .65 - .67
tanks, same basis gal. .50 - —

220° C to 242° C, tanks, Wilmington, Cal gal. .50 - .53

245° C to 298° C, tanks, Wilmington, Cal gal. .46 - —

Crotonic, fib, dms., works lb. .45 - —

Cyanoacetic, tech., bbls lb. .90 - 1.25

Dehydrocholic, injection, 10 to 100-lb. lots, fib. dms. lb. 25.00 - 25.50
oral, same basis lb. 18.40 - 18.45

Desoxycholic, 10 to 100-lb. lots, fib. dms lb. 23.50 - —

Dichlorophenoxyacetic (see under "D" 2,4-D).

Diethylbarbituric (see Barbital).

Diglycolic, bgs., works lb. .14 - —

Ethylhexoic, dms. c.l., works lb. .35 - —
l.c.l. works lb. .35½- —
tanks works lb. .33½- —

F, crude, paste, bbls., works lb. 1.67 - —

Folic, bots, fib cns. kilo or more gram. 1.60 - —

Formic, 85% cbys. c.l. works lb. .142 - .17
l.c.l., works lb. .14½- .22
90%, cbys., c.l., works lb. .1475- .1750
l.c.l., works lb. .15 - .23½

Fumaric, tech. bbls. dms lb. .37 - .38

Gallic, NF VII, bbls., 1,000-lb. lots, lb 1.80 - —
smaller lots lb 1.82 - 2.00
technical, bbls., 1,000-lb. lots lb. 1.58 - —
smaller lots lb. 1.69 - 1.78

Gamma, dry, ground, bbls., frt. alld lb 1.50 - —
paste, bbls., frt. alld lb 1.45 - —

Gentisic, 100-lb fib. dms lb. 8.50 - —

Gluconic tech 50% bots lb. .23½- .31½
dms lb. .14½- —
cbys. lb. .17½- —

Glutamic 99½% laevo, fib. dms., 100-lb lots, works lb. 2.45 - 2.53
25-lb. lots, works lb. 2.60 - 2.68

Glycerophosphoric, 35%, dms., works lb 2.25 - 2.35

Acid, glycolic (see Acid hydroxyacetic).
H, basis 100%, bbls., works lb. .82 - —
Hydriodic, 1.50 s.g. cbys lb. 2.67 - —
1.70 s.g. cbys lb. 2.98 - —
Hydrobromic, medicinal, 48%, cbys., divd E lb .37 - .43
Hydrochloric (see Acid, muriatic)
Hydrocyanic, cyls., works lb. 1.15 - —
dilute, NF, 2%, 5-lb. bots lb. .40 - —
Hydrofluoric, anhyd., cyls., works. lb. .24 - .25
tanks, works lb. .18 - —
70%, steel dms., works lb. .1535- .1950
Hydrofluosilicic, 30-35%, bbls., works lb. .07 - —
Hydroxyacetic, tech. 70%, bbls., non-return., Phila., basis 100% lb. .12 - —
tanks Belle, W Va., basis 100% lb. .085 - —
Hypophosphorous, purif., 50%, cbys lb. 1.30 - 1.32
USP, cbys lb 88 - —
Isonicotinic, 100 lb fib. dms, works lb. 10.00 - —
J, bbls., works, basis 100% lb. 2.50 - 2.85
Koch, bbls. frt. alld lb. .64 - .70
L, bbls frt alld lb. 1.25 - —
Lactic, edible, 50% bbls., 20 or more lb. .17 - .20
smaller lots lb. .17½ - .21
80%, bbls., 5 or more lb. .30 - .3640
less than 5 bbls lb. .305 - .3690
plastic grade, 50% bbls., 20 or more, works lb. .21¾ - —
1 to 19 lb. .22¼ - .22¾
80% bbls., 5 or more lb. .3815- —
tech., 22%, bbls., c.l., works, 100 lbs. 6.30 - —
l.c.l., works 100 lbs. 6.70 - —
cbys., works 100 lbs. 7.20 - 12.20
44%, bbls., c.l., works 100 lbs. 11.45 - 11.95
l.c.l., works 100 lbs. 11.85 - 12.50
NF, 85%, cbys lb. .85 - .88
Laurent's, bbls lb. .60 - .67
Lauric, 90%, dms lb. .31¾- .33
60%, dms lb. .22¼- .23¼
Linseed oil, dist., dms lb. .2145- .2195
water-white, dms lb. .2445- .2495
Maleic, cryst., powd., dms. lb. .37 - .38
Malic, tech., dms. lb. .50 - —
Mandelic, NF, dms., 1,000-lb. lots, lb 2.35 - —
smaller lots lb 2.40 - 2.50
Metanilic, dms., works lb. .57 - .75
Methacrylic, dms., c.l., and truckloads, works lb. 76 - —
less than truckload works lb 76½ - .80
Molybdic, dms 85-92% works lb. 1.40 - 1.55
Monochloroacetic, purified, flake, 99%, dms lb. .23½- .25¼
tech., flake, 96-97%, dms lb. .20 - .22
Muriatic, 18° cbys., c.l. works, 100 lbs 2.45 - 2.80
l.c.l., divd. Metropolitan area 100 lbs 3.50 - 4.30
tanks, works ton. 25.00 - 29.00
20°, cbys. c.l., works 100 lbs 2.70 - 3.05
l.c.l., divd. Metropolitan area 100 lbs. 3.50 - 4.30
tanks, works ton. 27.00 - 33.00
22°, cbys., c.l., works 100 lbs 3.30 - 3.40
l.c.l., divd Metropolitan area 100 lbs. 3.50 - 4.30
tanks, works ton. 32.00 - 36.00
CP, USP consumers, cbys., extra, c.l., works lb. .11¾- —
l.c.l., same basis lb. .13¼ - .13¾
5 pint bottles, extra, cs., c.l., same basis lb. .16¾ - —
l.c.l., same basis lb. .19¼- —

Acid, muriatic, CP, USP, prices to dealers, 1½c per lb. less.

Myristic, dms lb. .26¾- .28
Naphthenic, 220-230 acidity, dms., works lb. .14 - —
tanks, works lb .12 - —
Naphthol(1)-4-sulphonic (see Acid, Neville and Winther's)
Naphthol(1)-5-sulphonic (see Acid, L).
Naphthol(1)-5-sulphonic,3-amino (see Acid, S).
Naphthol(1)-3,6-disulphonic,8-amino (see Acid, H)
Naphthol(2)-6,8-disulphonic (see Acid, Gamma).
(5)-7-Sulphonic,2-amino (see Acid, J).
Naphtholsulphonic, mixed (see Acid, Cleve's, mixed)
Naphthylamine(1)-5-sulphonic (see Acid, Laurent's)
(2)-6-sulphonic (see Acid, Broenner's).
(2)-7-sulphonic (see Acid, F).
(2)-1-sulphonic (see Acid, Tobias).
Neville and Winther's, dms., frt. alld lb. 1.03 - —
Nicotinic, USP dms. frt. adjusted kilo. 9.00 - 9.30
Amide (see Nicotinamide).
Nitric, 36° Be cbys. c.l., works, E. 100 lbs 5.00 - —
l.c.l., works E 100 lbs. 5.30 - 11.10
38° Be cbys., c.l., works E 100 lbs. 5.50 - —
l.c.l. works E 100 lbs. 5.80 - 11.60
40° Be cbys., c.l., works E 100 lbs. 6.00 - 6.50
l.c.l. works E 100 lbs. 6.30 - 12.10
42° Be cbys., c.l., works E 100 lbs. 6.50 - 7.00
l.c.l., works E 100 lbs. 6.80 - 12.60
60% HNO_3, tanks, works, basis 100% 100 lbs. 3.25 - —
95% HNO_3, tanks, works, basis 100% 100 lbs. 4.25 - —
CP, NF consumers, cbys., extra c.l., works lb. .13½- —
l.c.l., same basis lb. .15 - .15½
5 pint bottles, extra, cs., c.l., same basis lb. .17½- —
l.c.l., same basis lb. .19 - .25
Oleic, single distilled, dms lb. .13½- .14¾
tanks lb. .11¾- —
double distilled (white), dms lb. .16 - .17¼
tanks lb. .14¼- —
Oleum (see Acid, sulphuric, fuming).
Orthochlorobenzoic, fib. dms., works lb. 1.13 - —
Orthocresotinic, dms., ton lots, works lb. .68 - —
smaller lots, works lb. .68 - —

Acacia—Acid, Orthocresotinic

Abbreviations

Used in OPD Market Quotations

ACS	American Chemical Society	dest-dist.	destructive-distilled	neut.	neutral
		dextro	dextrorotatory	NF.	National Formularly
alld.	allowed	dist.	distilled	No.	number
ammo.	ammonia	distr.	distributor	nom.	nominal
amorph.	amorphous	djns.	demijohns	ord.	ordinary
AMP.	American melting point	dlvd.	delivered	oz.	ounce
		dms.	drums	Pac.	Pacific
anhyd.	anhydrous	dom.	domestic	pf.	proof
a.p.a.	available phosphoric acid	E.	east	phos.	phosphate
		e.p.	end point	photo.	photographic
artif.	artificial	equald.	equalized	pkgs.	packages
ASTM.	American Society for Testing Materials	F.	fahrenheit	powd.	powdered
		ferment.	fermentation	precip.	precipitated
		ffa.	free fatty acid	prod.	producer
Be.	Baume	ffc.	free from chlorine	pt.	point
bbls.	barrels	fib.	fiber	pulv.	pulverized
bgs.	bags	f.o.b.	free on board	purif.	purified
bls.	bales	FPA.	free of prussic acid	redist.	redistilled
bots.	bottles	frt.	freight	refd.	refined
b.p.	boiling point	fus.	fused	refy.	refinery
b.p.l.	bone phosphate of lime	gal.	gallon	reg.	regular
		gran.	granular	resub.	resublimed
b.r.	boiling range	grd.	ground	ret.	returnable
bxs.	boxes	i.&a.	iron and aluminum	SD.	specially denatured
C.	centigrade	i.b.p.	initial boiling point	s.d	single distilled
cbys.	carboys			S. E.	southeast
CD.	completely denatured	imp.	imported	secs.	seconds
		incl.	included	s.g.	specific gravity
c.i.f.	cost, insurance, freight	indust.	industrial	shipt.	shipment
		kgs.	kegs	solut.	solution
cks.	casks	lacq.	lacquer	s.u.	standard unit
c.l.	car lots	lb.	pound	synth.	synthetic
cns.	cans	l.c.l.	less than car lots	tanks.	railroad tank-cars
col.	color	liq.	liquid	tech.	technical
coml.	commercial	m.a.p.	mixed anilin point	USP.	U. S. Pharmacopoeia
conc.	concentrated	M c.f.	thousand cubic feet	vis.	viscosity
CP.	chemically pure	min.	minimum	VM&P	varnish makers & painters
cps.	centipoises	m.p.	melting point	W.	west
cryst.	crystal	N.	nitrogen	whse.	warehouse
cs.	cases	nat.	natural	w.w.	water white
ctns.	cartons				
cyls.	cylinders				
dbl.	double				
denat.	denatured				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

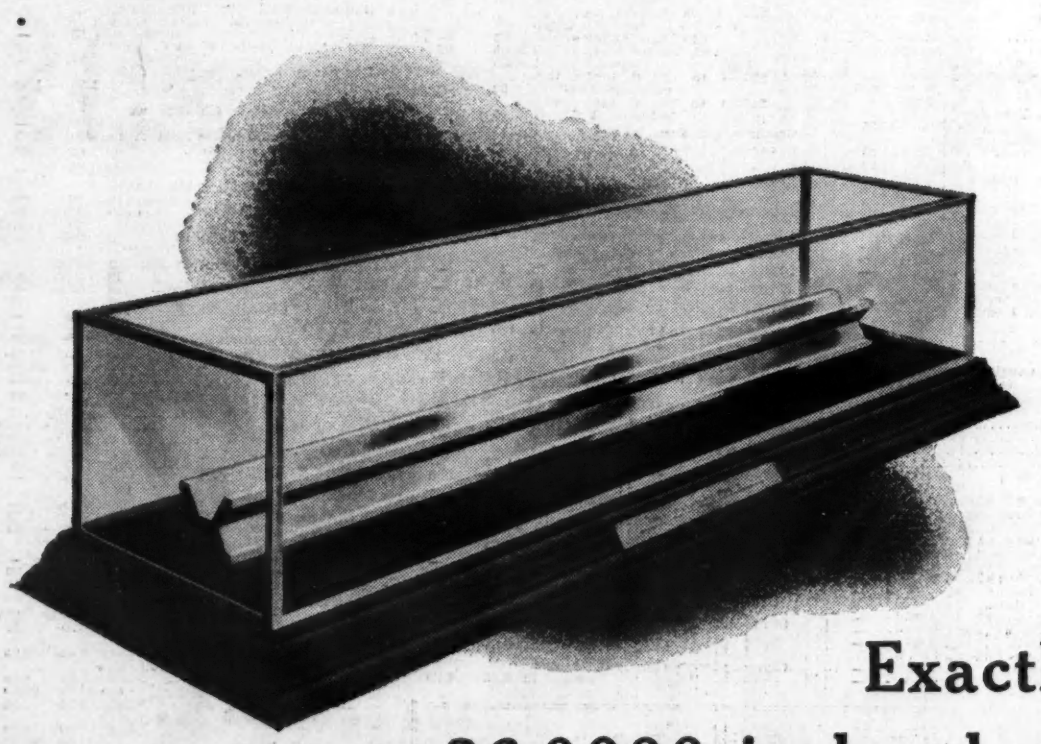
Acid, Oxalic—Alcohol, Isopropyl, Refined, 91%

Acid, oxalic, bbls., c.l., works lb. .1575- .1590
10,000-lb lots, works lb. .16 - .1615
smaller lots, works lb. .17 - .1715
Palmoil, double dist., dms lb. .11½- .12¾
Para-aminobenzoic, tech., dms., works lb. 1.74 - 1.77
USP, dms., 1,000-lb lots or more, works lb. 3.50 - —
smaller lots lb. 3.55 - 3.75
Para-aminosalicylic, dms., 1,000-lb. lots or more, frt. adjusted lb. 4.25 - —
smaller lots, same basis lb. 4.30 - 4.75
Parachlorobenzoic, fib dms., works lb. 1.59 - 1.62
Paramethylphenylcinchonic (see Neocinchophen)
Paranitrobenzoic, dms lb .77 - —
Paratoluidinmetasulphonic, bbls., works lb .92 - 1.04
Phenylacetic, bots lb 1.45 - 1.75
tech., dms., 1,000-lb. lots lb .90 - —
Phenylcinchoninic (see Cinchophen).
Phenylglycine (see Acid, monoacetic)
Phosphoric, food grade, 75%, cbys., c.l., works 100 lbs. 7.00 - 7.10
l.c.l., works 100 lbs. 7.50 - 8.00
tanks, works 100 lbs 4.90 - 5.00
NF, 85%, chys., c.l works lb .08 - .09¼
l.c.l. works lb .08½ - .09¼
Picric, NF 300-lb bbls lb .55 - —
dms., small lb. .81 - .87
tech., bbls lb .32 - .33
Propionic, synthetic, pure, dms., c.l., works lb. .258 - —
l.c.l., works lb .263 - —
tanks, works lb. .19 - .243
Pyrogallic, NF, (see Pyrogallol)
tech., bbls lb 2.76 - 2.99
Pyroligneous, dms., incl., l.c.l., works gal. .36 - —
whse. gal. .504 - —

Acid, ricinoleic (see Acid, castor oil, split).
s, bbls., works lb. 3.25 - —
Salicylic, crude, bgs lb. .32 - —
sublimed, tech., bbls., c.l. lb. .37 - —
l.c.l. lb. .44 - —
dyestuffs grade, bbls lb. .39 - —
USP, cryst., bbls lb. .46 - —
powder, bbls lb. .51 - —
Sebacic, purified, dms., c.l., works, lb. .93 - —
l.c.l., works lb. .93½- .95
Soybean oil, double dist., dms lb. .12¾- .14
single, dist., dms lb. .12¼- .13½
Stearic, double pressed, bgs lb. .12 - .13¼
single pressed, bgs lb. .11½- .12¾
triple-pressed, bgs lb. .14¼- .15½
Succinic, purified, cryst., bbls., works lb 63 - .75
Sulphanilic, tech., dms., c.l., frt. alld lb. .18 - —
l.c.l., frt. alld lb. 20 - —
Sulphuric, 65° Be, cbys., c.l., works 100 lbs. 1.75 —
l.c.l., works 100 lbs 2.05 2.85
tanks, works ton 16.30 —
66° Be, cbys., c.l. works 100 lbs. 2.00 2.10
l.c.l., works 100 lbs 2.30 3.10
tanks, works ton.20.00 —
96-100%, tanks, works ton.21.00 —
CP, NF, consumers cbys, extra, c.l., works, frt equald. lb .09¾ —
l.c.l., same basis lb. .11¼ .11¾
5 pt. bots., extra, ca., c.l., works frt equald lb .13¼ —
l.c.l. same basis lb. .14¾- .20¾
fuming, 20% tanks, works ton.22.40 —
Tallow, dist., dms lb. .10½- .11¾
hydrogenated, dms lb. .10½- .11¾

Acid, tannic, NF, fluffy, bbls., 1,000-lb. lots lb. 1.59 - 1.60
smaller lots lb. 1.65 - 1.76
powder, bbls., 1,000-lb. lots lb. 1.50 - —
smaller lots lb. 1.51 - 1.69
tech., dms lb. .95 - —
Tartaric, USP, dom., 230, 250-lb., dms., c.l. lb. .37 - —
10,000-lb. lots, 1 ship't. lb. .37½- —
smaller lots lb. .38 - —
100-lb. dms lb. .39 - —
small dms lb. .41 - .47
imported, bgs lb. .28 - —
Thioglycolic, refined, bgs., cbys., basis 100% lb. 1.60 1.66
Tolas, bbls., frt. alld lb. .74 - —
Toluenesulphonic, dms., c.l., works works lb. .16 - —
l.c.l., works lb 17½ - —
Trichloroacetic, bots. lb. 2.00 - 2.50
Trichlorophenoxyacetic (see under "T" 2,4,5-T)
Tungstic, tech., kgs., works lb 4.30 —
Undecylenic dms lb 1.40 —
Aconite leaves, bls lb. .35 - .40
root, bls lb. .65 75
Aconitine, amorph, mild bots oz.27.50 32.50
cryst., potent bots oz 78.00 85.00
Acrolein, dms, works lb 50 —
Acrylonitrile, dms, c.l., works lb 44½ —
l.c.l. works lb 45 47
tanks, works lb 43 —
ACTH, bots gm.25.00 - —
Adeps lanae (see Lanolin).
Adonis vernalis herb, bls lb 22 .24
Adrenocorticotropic hormone—see ACTH
Agar, USP, Kobe No 1 strip, bls lb. 2.25 - —
powdered, 30 mesh, fib, dms. lb. 2.25 2.50
Agaric, white, bls lb 2.25 Nom.

Agrimony herb, bls lb. .23 - .30
Alanine, dextro-laevo, dms., works lb. 8.50 -11.00
Albumen (egg), edible, flake, bbls., lb. 2.61 - 2.63
powder, bbls lb. 2.63 - 2.67
tech., cryst., bbls lb. 1.03 - 1.08
Albumin, blood, dark (see Blood, dried, soluble).
light, dms., l.c.l. lb. .70 - .80
Egg (see Albumen).
Alcohol, allyl, dms., c.l., dlvd lb. .31¾ —
l.c.l., dlvd lb. .32½- —
tanks, dlvd. lb. .30 - —
Amyl, ex fusel oil (see Fusel oil, ref.)
ex pentane, dms, c.l., frt. alld. E. of Rockies lb. .16¾- —
l.c.l., frt. alld E. of Rockies lb. .17½- —
tanks, frt. alld E of Rockies lb. .15 - —
fermentation, ref'd., 126°-132°C, dms., c.l., dlvd. lb. .32¾- —
l.c.l., dlvd lb. .33¾- .36
tanks, dlvd lb. .31 —
128-132° C, dms, l.c.l. dlvd. lb. .33½ .36
ACS grade, dms, l.c.l., dlvd lb. .35¾ —
synthetic, normal, dms., c.l., works lb. .42 —
l.c.l., works lb. .43 —
tanks, works lb. .40 —
secondary, dms, c.l., frt. alld. E. lb. .23¼- —
l.c.l., frt. alld. E lb. .24 - —
tanks, frt. alld. E lb. .21½- —
tertiary, dms c.l., frt. alld. E. lb. .19¾- —
l.c.l., frt. alld. E lb. .20½- —
tanks, frt. alld. E lb. .18 - —
Benzyl, NF, dms lb. .64 .80
tech., dms, dlvd lb. .47½ .49
Butyl, fermentation, normal, dms., c.l., frt. alld lb. .14¾- —
l.c.l., frt. alld lb. .15½- —
tanks, frt. alld lb. .13 - —
synthetic normal dms, c.l., frt. alld lb. .14¾- —
l.c.l., frt. alld lb. .15½- —
tanks, frt. alld lb. .13 - —
secondary dms, c.l, frt. alld. lb. .12¾- —
l.c.l., frt. alld lb. .13½- —
tanks, frt. alld lb. .11 - —
tertiary dms, c.l, frt. alld. lb. .13¾- —
l.c.l. frt. alld lb. .14½- —
tanks, frt. alld lb. .12 - —
Capryl, 85%, dms., c.l., works lb. .15 - —
l.c.l., works lb. .15½- —
tanks, works lb. .13½- —
95%, dms., c.l., works lb. .16½- —
l.c.l. works lb. .17 - —
tanks, works lb. .15 - —
Cetyl, extra, fib, cns., 500-lb. lots or more lb. 1.32 - —
smaller lots lb. 1.37 - —
NF, fib, cns., 140-lb lots or more lb. .72 .90
smaller lots lb. .72 1.00
Cinnamic, bots lb. 2.25 - 3.20
Decyl, bots lb. 1.70 2.00
Denatured, CD12, CD13, CD14, dms., c.l., dlvd, E. of Rockies gal. .54½- —
l.c.l., dlvd., same basis gal. .58½- —
tanks, dlvd., same basis gal. .42½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Unit.
Proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .55 - —
l.c.l., same basis gal. .59 - —
tanks, same basis gal. .43 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Unit.
SD1, dms., c.l., dlvd. E. of Rockies gal. .55 - —
l.c.l., same basis gal. .59 - —
tanks, same basis gal. .43 - —
SB2B, dms., c.l., dlvd. E. of Rockies gal. .53 - —
l.c.l., same basis gal. .57 - —
tanks, same basis gal. .41 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .53 - —
l.c.l., same basis gal. .57 - —
tanks, same basis gal. .41 - —
SD23A, dms., c.l., dlvd. E. of Rockies gal. .55½- —
l.c.l., same basis gal. .59½- —
tanks, same basis gal. .43½- —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .55½- —
l.c.l., same basis gal. .59½- —
tanks, same basis gal. .43½- —
SD29-1, dms., c.l., dlvd. E. of Rockies gal. .53½- —
l.c.l., same basis gal. .57½- —
tanks, same basis gal. .41½- —
SD30, dms., c.l., dlvd. E. of Rockies gal. .52½- —
l.c.l., same basis gal. .56½- —
tanks, same basis gal. .40½- —
SD35A, dms., c.l., dlvd. E. of Rockies gal. .55½- —
l.c.l., same basis gal. .59½- —
tanks, same basis gal. .43½- —
SD40, dms., c.l., dlvd. E. of Rockies gal. .54 - —
l.c.l., same basis gal. .58 - —
tanks, same basis gal. .42 - —
Diacetone, acetone free, dms., c.l., dlvd lb. .13¾- —
l.c.l., dlvd lb. .14½- —
tanks, dlvd lb. .12 - —
tech., dms., c.l., dlvd lb. .13¼- —
l.c.l., dlvd lb. .14 - —
tanks, dlvd lb. .11½- —
Ethyl, 190 pf., USP, tax paid, dms., c.l., dlvd. E. of Rockies gal.20.47 - —
l.c.l., same basis gal.20.51 - —
tanks, same basis gal.20.35 - —
tax free, dms., c.l., dlvd. E. of Rockies gal. .52 - —
l.c.l., same basis gal. .56 - —
tanks, same basis gal. .40 - —
absolute, 200 pf., tax paid, dms., c.l., dlvd. E. of Rockies. gal.21.37 - —
l.c.l., same basis gal.21.61 - —
tanks, same basis gal.21.45 - —
Ethylbutyl, dms., c.l., works lb .29¼- .29½
l.c.l., works lb .30 - —
tanks, works lb .28 - —
Ethylhexyl, dms., c.l., dlvd. E lb. .27¾- —
l.c.l. same basis lb. .28¾- —
tanks same basis lb. .26¼- —
Furfuryl, tech. cns., works lb. .31 - —
dms., c.l., works lb. .22½- —
l.c.l., works lb. .24 - —
tanks, works lb. 19½ - —
Isoamyl (see Alcohol, amyl, fermentation, refined)
Isobutyl, dms., c.l., dlvd lb. .13¾- —
l.c.l. dlvd lb. .14½- —
tanks, dlvd lb. .12 - —
Iso-octyl, dms., c.l., dlvd lb. .23¼- —
l.c.l. dlvd. lb. .27 - —
tanks, dlvd. lb. .24½- —
Isopropyl, refd., 91%, dms., c.l., dlvd gal. .47½- .50½
l.c.l., dlvd. gal. .52½- .55½
tanks, dlvd gal. .35½- .38½



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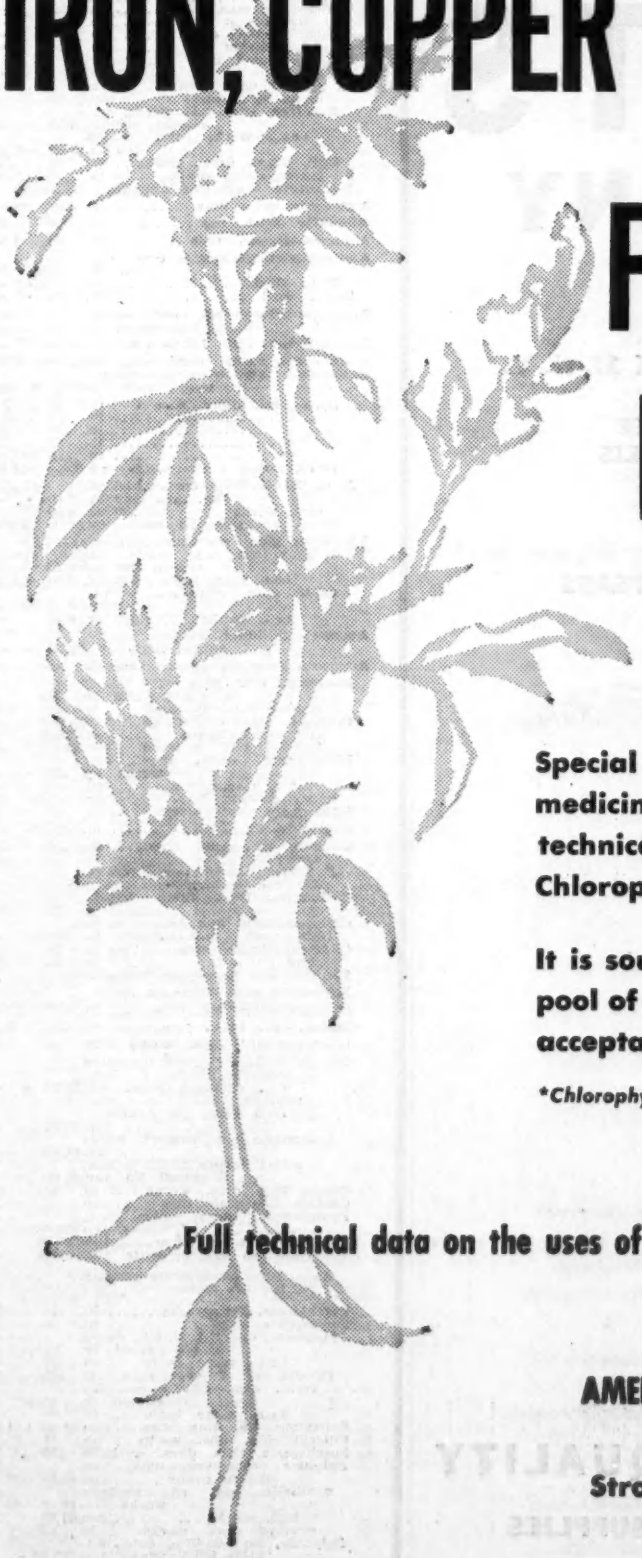

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Alcohol, Isopropyl, Refined, 95%—Ammonium Sulphide

Alcohol, isopropyl, refd., 95%, dms., c.l., dlvd. gal. .49¾- —
l.c.l., dlvd. gal. .54¾- —
tanks, dlvd gal. .37¾- —
99%, dms., c.l., dlvd gal. .52 - .55
l.c.l., dlvd gal. .57 - .60
tanks, dlvd gal. .40 - .43
Lauryl, bots lb. 2.00 - 2.50
Methyl (see Methanol).
Methylamyl (see Carbinol, methyl-isobutyl)
Octyl, perfumer's grade, bots lb. 1.70 - 3.25
technical (see Octanol normal).
Pentothenyl (see Panthenol).
Phenylethyl, dms lb. 1.57 2.15
Polyvinyl, various grades, bgs., ton lots, works lb. .72½- 76
smaller lots, works lb. .77½- .81
Propyl, normal, dms., c.l., dlvd, lb. .12 - —
l.c.l., dlvd lb. .13 - —
tanks, dlvd lb. .10 - —
Tetrahydrofurfuryl, cns., Waverly, N. Y. lb. .49½- —
dms., Niagara Falls, N. Y. lb. .42½- —
l.c.l., Waverly, N. Y. lb. .45 - —
tanks, Niagara Falls, N. Y lb. .40 - —
industrial grade, dms c.l., Niagara Falls N. Y lb. .29 - —
l.c.l., Waverly N. Y lb. .30 - —
tanks, Niagara Falls, N. Y lb. .27 - —
Aldol, 95%, dms., works lb. .23 - —
denaturing grade, dms gal. 2.15 - —
Aldrin, 60% solut., dms., c.l., works, frt. alld lb. .93 - —
l.c.l., works, frt. alld lb. 1.05 - —
Aletris root, bgs lb. 1.20 - 1.25
Alkanet root, bgs lb. .45 - .46

Allethrin, 100%, dms., frt., alld lb. 32.00 - —
90%, dms., frt. alld lb. 28.80 - —
solution, 20%, dms. 100-lb. lots, frt. alld lb. 6.65 - —
2½%, dms., frt. alld gal. 6.00 - —
Allspice (see Pimento).
Allyl bromide, cbys., works lb. 1.35 - 1.40
Chloride, dms., c.l., dlvd lb. .16¾- —
l.c.l., dlvd. lb. .17½- —
tanks, dlvd. lb. .15 - —
Starch, solid, dms., works lb. .52¾- .54¾
solution, 40% toluol-butanol, dms., works lb. .25½- .26¼
Aloe, Cape, cs lb. .35 - .38
powdered, cs. lb. .40 - .41
Curacao, kgs. lb. .60 - .65
Socotrine, kgs. lb. .25 - .35
Aloin, USP, bbls., dms., kgs lb. 4.25 - 4.70
Alphanaphthol, bbls., frt. alld lb. .85 - —
Alphanaphthylamine, bbls., frt. alld lb. .45 - —
Alphanitronaphthalene, bbls., frt. alld lb. .41 - —
Alphapicoline, ret. dms., c.l., works, frt. equald lb. .39½- —
l.c.l., works, frt. equald lb. .40 - —
Alphapinene, tanks, South, works gal. No prices.
Alphaterpineol, dms., l.c.l., dlvd. E. lb. .17 - —
Alphatocopherol, bots kilo. 250.00 - —
Acetate, bots kilo. 250.00 - —
Althea root, NF, peeled, bls lb. .20 - .33
Alum, ammonium, gran., bgs., works 100 lbs. 3.80 - —
lump, dms., works 100 lbs. 4.55 - 4.95
powd., dms., works 100 lbs. 4.70 - 5.10
USP, burnt dms lb. .20 - .21
hydrous, dms lb. .07¾- .08

Alum, potassium, gran., bgs., works 100 lbs. 4.05 - —
lump, dms., works 100 lbs. 4.80 - 5.20
powd., dms., works 100 lbs. 4.95 - 5.35
USP, burnt, dms lb. .20 - .21
hydrous, dms lb. .07¾- .08
Potash-chrome, dms lb. .17 - —
Sodium, dms., c.l., works 100 lbs. 4.60 - —
l.c.l., works 100 lbs. 5.00 - —
Alumina, calcined, bgs., c.l., works, lb. .0385- —
l.c.l., works lb. .0410- .0510
crystalline (see Aluminum oxide).
Aluminum acetate, basic solut., 24%, bbls., l.c.l., works lb. .14 - —
Chloride, com'l, anhyd., dms., c.l., works, frt. equald lb. .15 - —
l.c.l., works, frt. equald. lb. .1550- —
cryst., dms., c.l., works lb. .1030- —
l.c.l., works lb. .1070- —
solution, 32°, cbys., c.l., works, lb. .0369- —
l.c.l., works lb. .0435- .0960
tankcars, works 100 lbs. 2.80 - —
NF, gran., dms., works lb. .29 - .31
Fluoride, tech., anhyd., bgs., c.l., works lb. .11¾- —
l.c.l., works lb. .12¾- —
Aluminum fluoride, fiber dms., 35c. per 100 lbs. higher.
Formate, basic solution, cbys lb. .09½- —
l.c.l., works lb. .10 - —
Hydrate, heavy, bgs., c.l., frt. equald ton 60.00 - —
l.c.l., works ton. 65.00 -65.00
light, bgs., dlvd lb. .17 - —
Hydroxide, gel., pharmaceutical, 14-15%, Al_2O_3, fib dms., works lb. .22 - —
contract, works lb. .21 - —
9-9½%, Al_2O_3, fib. dms., works lb. .19 - —
contract, works lb. .18 - —

Aluminum hydroxide dried, USP, XIV, fib., dms., works lb. .82½- —
contract, works lb. .79½- —
powder, tech (see Aluminum hydrate).
Laurate, precip., bbls lb. .44 - —
Metal, 99%+, ingots, 10,000-lb. lots, lb. .20 - —
pigs, 10,000-lb. lots lb. .19 - —
Oxide, amorphous (see Alumina, calcined).
crystalline, flour classified, 8-240 mesh, dms, frt. alld lb. .14 - .15
kgs., frt. alld lb. .12½- —
smaller lots, frt. alld, lb. .13 - .15
288-400 mesh, dms., frt. alld lb. .32 - .33
kgs., frt alld lb. .31 - —
500 mesh, dms., frt. alld lb. .35 - .37
kgs., frt alld lb. .34 - —
600 mesh, dms., frt. alld. lb. .51 - .53
kgs., frt. alld lb. .50 - —
Aluminum oxide flour prices W. of Denver ¾c. per lb. higher.
optical, floated, kgs., dlvd lb. .36 - .86
unclassified, dms., frt. alld. lb. .16 - .17
kgs. frt. alld lb. .15 - —
Paste, lining, extra-fine, dms lb. .59½- —
standard, dms lb. .41 - —
Powder, lining, extra fine, dms. lb. .97½- —
standard, dms lb. .68½- —
rubber grade, dms lb. .58½- —
unpolished, standard, dms lb. .54½- —
varnish standard, dms lb. .59 - —

Aluminum powder and paste prices are f.o.b. shipping point. Add 1c. per lb for 100-lb drs., 1½c. per lb for 50-lb drs., 3c. per lb for 10-lb can and 5c to 12c per lb for smaller containers. Deduct 1c. per lb for single shipment of 400 to 1,499 lbs., 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs., and 4c for 30,000 lbs or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or over.

Aluminum resinate, precip., dms., frt. alld lb. .27½- —
Stearate, dibasic, ctns., c.l. lb. .33 - —
ton lots or less lb. .34 - —
monobasic, ctns., c.l. lb. .33 - —
ton lots or less lb. .34 - —
tribasic, ctns., c.l lb. .33 - —
ton lots or less lb. .34 - —
Sulphate, com'l, bulk, c.l., works, 100 lbs. 1.65 - —
ground, bgs., works ton. 33.00 - —
lump, bgs., works ton. 36.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.25 - —
l.c.l., works, frt. equald 100 lbs. 3.65 - 6.15
USP, gran., dms., works lb. .10 - .12
powd., dms., works lb. .14 - .16
Trihydrate, heavy (see Aluminum hydrate)
Ambergris, gray, bots oz. 8.00 -10.00
Ambrette seed, bgs lb. .65 - .66
Aminoazotoluene, bbls lb. .94 - 1.03
Aminoethylethanolamine, dms., c.l., dlvd lb. .46½- —
l.c.l., dlvd lb. .47½- —
tanks, dlvd lb. .45 - —
Aminomethylpropanol, cns., dms., works lb. .60 - —
Aminophyllin, USP, 100-lb. dms lb. 4.30 - —
Aminopyrine, USP, bots, dms lb. 6.00 - 6.15
Ammonia, anhydrous, fertilizer, tanks, works ton 79.00 -80.00
pure, cyls., extra, zone 1 lb .17 - .17½
2 lb. .17 - .18
3 lb. .17 - .19
4 lb. .20 - .21
5 lb. .16 - .19
refrigeration tanks works ton 80.00 -82.50
Aqua, (29.4%, NH_3), dms., c.l., dlvd. Met. area 100 lbs. 3.60 - —
l.c.l., works 100 lbs. 4.00 - —
tanks, works, anhyd. basis ton 80.00 -86.00
Ammoniac gum (see Gum, ammoniac).
Sal, gray, bgs., c.l., works, frt. equald 100 lbs. 8.25 - —
l.c.l., same basis 100 lbs. 8.65 -11.15
white, gran., bgs., c.l., works 100 lbs. 4.75 - —
l.c.l., works 100 lbs. 6.50 - —
Ammoniacal liquor, tankcars, works, anhyd. basis ton. 86.00 - —
Ammonium acetate, purified, dms. lb. .43 - —
Benzoate, USP, dms., kgs., 4,000 lb lots, frt. alld lb. .80 - —
smaller lots, frt. alld lb. .81 - 1.08
Biborate, bbls., c.l., works ton. 312.00 - —
ton lots, ex whse ton. 375.00 - —
less ton lots, ex whse ton. 386.00 - —
Bicarbonate, dom., dms., c.l., works lb. .06 - —
l.c.l., works lb. .07 - —
imported, dms., l.c.l lb. .07¼- .08½
Bichromate, bbls, works lb. .33 - .38
Bifluoride, dms., dlvd lb. .2035- .2160
Bromide, NF, gran., bbls lb. .38 - .39
dms lb. .39 - .42
Powdered ammonium bromide 10c per lb higher
Carbonate, USP, lump, powd., dms lb. .23 - .24
Chloride, tech. (see Ammoniac sal).
USP, gran., bbls., dms lb. .17¼- —
Citrate, dibasic, bbls lb. .75 - —
dms. lb .80 - .85
Fluoride (see Ammonium bifluoride).
Hydroxide (see Ammonia aqua).
Hypophosphite, NF, dms lb. 2.40 - —
Iodide, NF, bots., jars lb. 4.01 - 4.13
Linoleate, 80% dms., works lb. .50 - .55
Nitrate, fertilizer grade, Canadian eastern, 33.5% N, bgs., c.l., shipping point ton. 72.50 - —
western, 33.5% N., bgs., f.o.b. cars, Los Angeles ton. 86.84 - —
domestic, bgs., western, works ton. 64.00 - —
with dolomite, 20.5% N, bgs., Hopewell, Va ton. 51.00 - —
Oleate, 75%, dms., works lb. .55 - .60
Oxalate, fine gran., dms lb. .25 - .31
Pentaborate, gran., bbls., c.l., works ton. 222.00 - —
ton lots, ex whse ton. 285.50 - —
less ton lots, ex whse ton. 290.60 - —
Ammonium pentaborate powder, $10 per ton higher.
Perchlorate, kgs., works lb. .60 - .75
Persulphate, kgs. lb. .30 - .35
Phosphate, com'l, bgs., c.l., works, frt. equald lb. .08½- —
l.c.l., same basis lb. .09 - —
dibasic, NF V, bbls., dms lb. .45 - —
tech., bgs., c.l., works, frt. equald lb. .08½- —
l.c.l., same basis lb. .09 - —
Salicylate, NF, dms, kgs lb. 1.62 1.64
Silicofluoride, dms., works lb. .11 .12
Sulphamate, bbls., dms., works lb. .18 .20
Sulphate, coke-oven, bulk, producing ovens ton. 40.00 -49.50
synthetic, bgs., c.l., western, works ton. 50.00 54.50
bulk, works ton. 47.00 - —
purified, dms., works lb. 07½ .08½
Sulphide, liq., 40-45%, dms., c.l., basis 100%, works ton. 211.50 - —
l.c.l., basis 100% works ton. 312.50 - —
tanks, dlvd. or frt. alld ton. 181.50 - —

MERCHANTS CHEMICAL COMPANY INC.

60 EAST 42nd STREET NEW YORK 17, N. Y.

AURORA, Ill.
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Prompt delivery from warehouse stocks of the following chemicals:

ACIDS
BORIC
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MURIATIC
SULPHURIC
ALUMS
ALUMINUM SULPHATE
BORAX
BORIC ACID
CALCIUM HYPOCHLORITE
CARBON DIOXIDE (SOLID)
CARBON TETRACHLORIDE
CARBOXYMETHYLCELLULOSE
CAUSTIC POTASH
CAUSTIC SODA
CHLORIDE OF LIME
CHLORINE
COPPER SULPHATE
EPSOM SALTS
ETHYLENE DICHLORIDE
FORMALDEHYDE
GLYCERINE
HYDROGEN PEROXIDE
IRON CHROMITE
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NAPHTHALENE
ORTHODICHLOROBENZENE
PARADICHLOROBENZENE
PERCHLORETHYLENE
POTASSIUM BICHROMATE
POTASSIUM PERMANGANATE
PROPYLENE GLYCOL
SOAPS
SODA ASH
SODIUM BICARBONATE
SODIUM BISULPHATE
SODIUM BISULPHITE
SODIUM BICHROMATE
SODIUM CHROMATE
SODIUM HYDROSULFITE
SODIUM HYPOSULFITE
SODIUM METASILICATE
SODIUM NITRATE
SODIUM ORTHOSILICATE
SODIUM PERBORATE
SODIUM PHOSPHATES, All types
SODIUM SILICATE
SODIUM SULPHIDE
SODIUM SULPHATE
SODIUM SULPHITE
SODIUM SESQUICARBONATE
STEARATES
SULPHUR
SYNTHETIC DETERGENTS
TRICHLORETHYLENE
TRISODIUM PHOSPHATE
WETTING AGENTS
ZINC SULPHATE

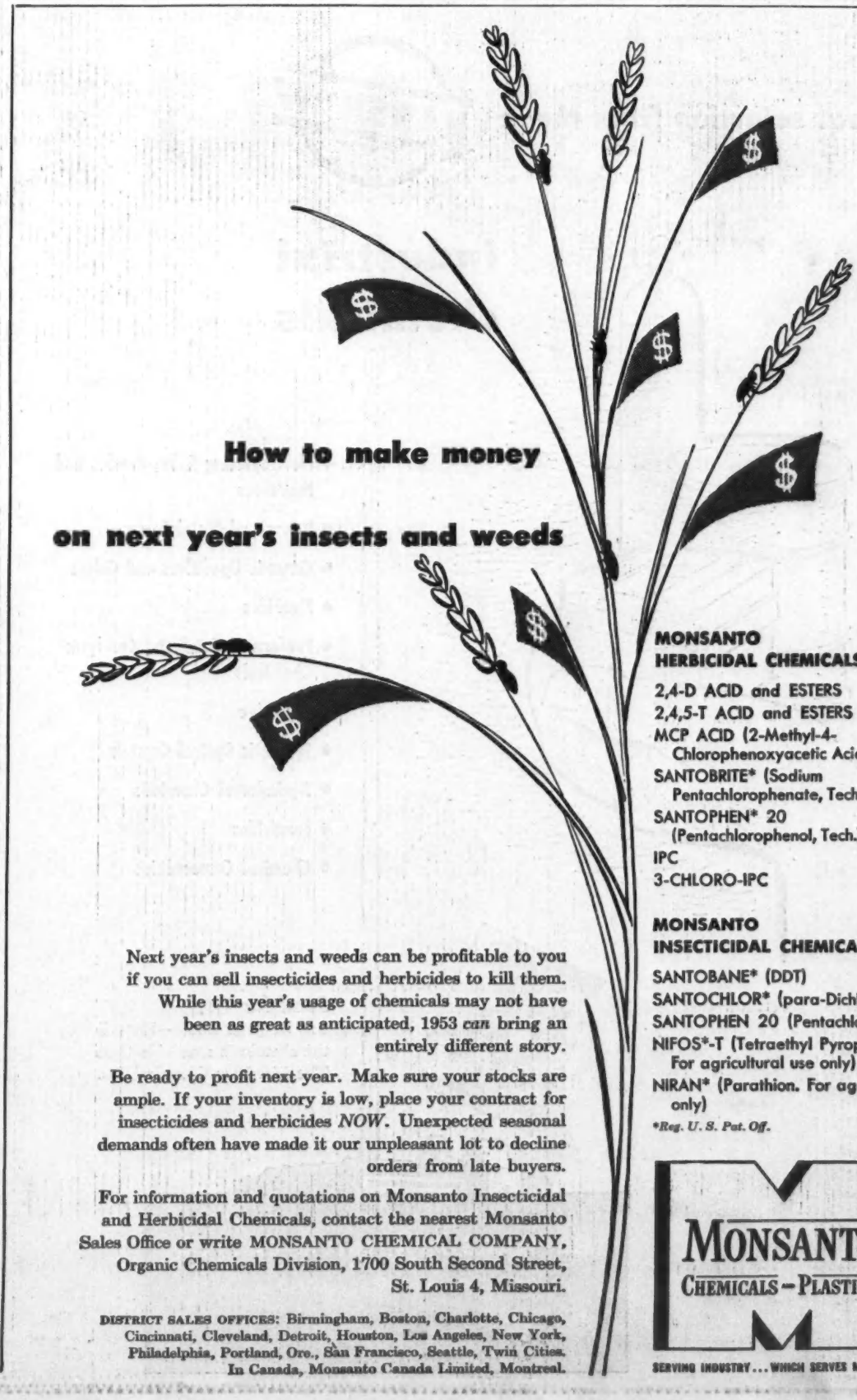
SERVICE QUALITY

ALSO A COMPLETE LINE OF LAUNDRY & DRY CLEANING SUPPLIES

Ammonium sulphocyanide, tech. (see Ammonium thiocyanate).			
Thiocyanate, tech., dms., c.l., works	lb.	.18	—
l.c.l., works	lb.	.19	.30
Thioglycollate, com'l, cbys., basis 100%	lb.	1.60	—
highly purified, cbys., basis 100%	lb.	1.70	1.96
Thiosulphate, cryst., photo grade, fib. dms., frt. alld	lb.	.65	—
60% solution, dms., c.l., works	lb.	.06½	—
Amphetamine hydrochloride, dibasic, dextro, bots	lb.	32.00	—
dextro-laevo, dms	lb	6.50	7.00
monobasic, dextro, bots	lb.	32.00	—
Phosphate, dibasic, dextro, bots.	lb.	32.00	—
dextro-laevo, dms	lb.	6.50	7.00
Sulphate, dextro, dms	lb.	32.00	—
dextro-laevo, dms	lb.	6.50	7.00
Amyl acetate, ex fusel oil, tech., E. of Rockies	lb.	.16¾	—
l.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.15	—
ex pentane, dms., c.l., frt. alld, E. of Rockies	lb.	.20	—
l.c.l., same basis	lb.	.21	—
tanks, same basis	lb.	.18	—
Alcohol (see Alcohol, amyl).			
Butyrate, dms	lb.	.90	1.05
Cinnamic aldehyde, dms	lb.	1.70	2.10
Nitrite, USP, bots	lb.	1.75	1.83
Salicylate, cns., dms		.77	.95
Anethol, NF, cns., dms	lb.	1.20	1.60
Angelica root, dom., bls	lb.	.60	.70
imported, bls	lb.	.50	.80
Angostura bark, bls	lb.	.43	.48
Anilin oil, dms, c.l., works, frt. alld.	lb.	.19	—
l.c.l., works, frt. alld	lb.	.20	—
tanks, works, frt. alld	lb.	.18	—
Salt, dms., frt. alld	lb.	.30	—
Anise, Bulgarian, bgs	lb.	.12	.13
Chinese, star, bgs	lb.	.68	Nom.
Czech, bgs	lb.	.12	.12½
Mexican, bgs	lb.	.14½	.15
Spanish, bgs	lb.	.15	.15½
Syrian, bgs	lb.	.13½	.14
Turkish, bgs	lb.	.13½	.14
Anisic aldehyde, bots., dms	lb.	2.35	2.80
Annatto seed, whole, bgs	lb.	.26	—
powdered, dms	lb.	.28	—
Anthracene, 90-95%, bbls., ton-lots, works	lb.	.80	—
smaller lots, works	lb.	.85	—
Anthraquinone, 99.5%, bbls., frt. alld	lb.	.85	.88
Antimony butter (see Antimony trichloride).			
Metal, bulk, c.l., mines	lb.	.34½	—
cases, c.l., mines	lb.	.35	—
Oxide, bgs., c.l., frt. alld	lb.	.30	.36
l.c.l., frt. alld	lb.	.31½	.37½
Sulphide, 62-64%, bgs., dlvd	lb.	.38	.38½
Trichloride, pails, c.l., works	lb.	.43	.47
l.c.l., works	lb.	.45	.49
solution, cbys., works	lb.	.29	.30
Antimony-potassium tartrate (see Tartar emetic).			
Antipyrene NF, dms	lb.	2.50	2.60
Apomorphine hydrochloride, USP, bots	oz.	23.40	23.90
Areca nuts, powd., bbls	lb.	.13	.16
Arecoline hydrobromide, NF, bots. tins	oz.	5.00	5.75
Arginine monohydrochloride, laevo, dms., 1 kilo lots	kilo	77.00	—
Argois, min. 50%, bgs., shipment ports, per 100 kilos, basis 100%	lb.	21.50	Nom.
Arnica flowers (true montana), bls	lb.	.65	.66
root, bls	lb.	1.45	—
Arrowroot, powd., bgs	lb.	.11	.14
Arsenic metal, lump, bbls., prompt ship't	lb.	.80	.90
Trioxide, USP, dms	lb.	.45	—
White, powd., bbls., c.l., dlvd	lb.	.05½	—
l.c.l., dlvd.	lb.	.06½	.07½
Asafetida, cs	lb.	.32	.35
powd., bbls., dms	lb.	.50	.53
Asbestine (see Talc, fibrous, N. Y.).			
Asbestos, Canadian, crude, No. 1, c.l. (20 tons), mines	ton	1,300.00	—
No. 2, c.l. (20 tons), mines	ton	675.00	—
Run-of-mine, c.l. (20 tons), mines	ton	556.00	—
3K, c.l., (20 tons), mines	ton	436.00	—
3R, c.l. (20 tons), mines	ton	371.00	—
3T, c.l. (20 tons), mines	ton	348.00	—
3Z, c.l. (20 tons), mines	ton	321.00	—
4K, c.l. (20 tons), mines	ton	173.00	—
4M, c.l. (20 tons), mines	ton	173.00	—
4T, c.l. (20 tons), mines	ton	156.00	—
4Z, c.l. (20 tons), mines	ton	156.00	—
5D, c.l. (20 tons), mines	ton	122.50	—
5K, c.l. (20 tons), mines	ton	122.50	—
5M, c.l. (20 tons), mines	ton	116.50	—
5R, c.l. (20 tons), mines	ton	110.00	—
6D, c.l. (30 tons), mines	ton	78.00	—
7D, c.l., (30 tons) mines	ton	68.50	—
7F, c.l. (30 tons), mines	ton	65.00	—
7H, c.l. (30 tons), mines	ton	55.00	—
7K, c.l. (30 tons), mines	ton	46.00	—
7M, c.l. (30 tons), mines	ton	40.00	—
7R, c.l. (30 tons), mines	ton	39.00	—
7T, c.l. (30 tons), mines	ton	37.00	—
7RF, c.l., (30 tons), mines	ton	40.00	—
7TF, c.l. (30 tons), mines	ton	40.00	—
8S, c.l. (30 tons), mines	ton	27.00	—
Asbestos c.l. prices are in U. S. funds. l.c.l. lots, $4 per ton higher.			
Asphalt, gilsonite, blacs., seconds, 300°-390°F. fusing point not uniform, bgs., c.l., Craig, Colo.; Heber City, Utah	ton	34.00	—
select, 350°F. fusing point, bgs., c.l., same basis	ton	38.00	—
270°-295°F. fusing point, bgs., c.l., same basis	ton	37.00	—
jet, bgs., c.l., same basis	ton	34.00	—
Manjak, No. 10, crude, dms., works	lb.	.06½	—
Petroleum, cut-back, tanks, tank-wagon, refinery	gal.	.09	—
emulsion, tanks, tank-wagon, refinery	gal.	.09½	.10
steam-refd., less than 80 penetration, tanks, tankwagon, refinery	ton	22.00	—
80-300 penetration, tanks, tank wagon, refinery	ton	21.00	—
Aspirin (see Acid, Acetylsalicylic.)			
Atropine, USP, bots	oz.	9.35	10.50
Sulphate, USP, bots	oz.	5.25	6.30

B

Bacitracin, bulk, 1,000,000,000 or more units	50,000 units.	.70	—
less than 1,000,000,000 units	50,000 units.	.75	—
Balm of Gilead buds, dried, bgs	lb.	1.35	1.45
Barberry root bark, bags	lb.	.35	.40
tree bark, bgs	lb.	.40	.45
Barbital, USP, 100-lb. dms	lb.	5.00	—
Sodium USP dms	lb.	5.25	5.27
Barium carbonate, precip., bgs., c.l., works	ton	85.50	—
smaller lots, works	ton	95.50	—
Chlorate, kgs., works	lb.	.34	.38
Chloride, anhyd., bgs., c.l., works	bgs	ton 152.00	—
l.c.l., works		ton 162.00	—
NF, cryst., dms	lb.	.16	—
Chromate, bgs., frt. equald	lb.	.30	—
Dioxide (see Barium peroxide).			
Hydrate, crystals, bgs	ton	190.00	200.00
Iodide, bots	lb.	6.14	—
Monoxide (see Oxide).			
Nitrate, bbls., c.l., works	lb.	.12½	—
l.c.l., works	lb.	.14	—
Oxide, grd., dms., c.l., works	ton	250.00	—
l.c.l., works	ton	260.00	—
Peroxide, dms., works	lb.	.16	—
Stearate, ctns., c.l.	lb.	.37	—
ton lots	lb.	.36	—
less ton lots	lb.	.39	—
Sulphate, tech. (see Barytes and Blanc fixe).			
X-ray, bbls.	lb.	.14	—
Sulphide, dms., c.l., works	ton	71.50	—
l.c.l., works	ton	81.50	—
Baryte ore, approx. 94%, $BaSO_4$, bulk, mines	ton	9.40	12.50
Barytes, Southern off-color, bgs., mines	ton	20.00	—
96.75%, bgs. mines	ton	20.00	—
water grd., paper bgs., c.l., St. Louis	ton	37.60	37.85
ex-whse. N. Y.	ton	53.45	61.75
Bauxite, bulk, mines	ton	9.50	10.00
Bay leaves (see Laurel leaves).			
Belladonna, leaf, bls	lb.	.35	.50
root, bls	lb.	.35	.40
Bentonite, 200 mesh bgs., works	ton	12.50	—
Italian, white, high gel, bgs., l.c.l., works	ton	71.40	—
5 ton lots	ton	68.90	—
10 ton lots, ex dock	ton	57.00	—
low gel, bgs., l.c.l.	ton	69.70	—
5-ton lots	ton	67.20	—
10 ton lots, ex dock	ton	55.00	—
Benzal chloride, cbys., works	lb.	.22	.23½
Benzaldehyde, NF, dms	lb.	.74	.79
tech., cbys., dms	lb.	.49	.54
Benzene (see Benzol).			
Hexachloride, 99% gamma isomer (see Lindane).			
tech., bgs., dms., c.l., works, gamma	unit-lb.	.013	.015
l.c.l., works, gamma	unit-lb.	.019	.021
dust, dry, distributors, dms., c.l., dlvd., gamma	unit-lb.	.0185	—
l.c.l., dlvd., gamma	unit-lb.	.0225	—
wet, distributors, dms., c.l., dlvd., gamma	unit-lb.	.0280	—
l.c.l., dlvd., gamma	unit-lb.	.0325	—
Benzidine base, bbls	lb.	1.02	—
Hydrochloride, bbls., frt. alld	lb.	.94	—
Benzocaine, dms	lb.	3.48	3.50
Benzol, pure, nitration, tanks, works, Bethlehem, Pa	gal.	.37	—
Birmingham district	gal.	.30	.38½
Chicago district	gal.	.30	.35
Cleveland district	gal.	.30	.35
Geneva, Utah	gal.	.30	—
Johnstown, Pa	gal.	.35	—
Lackawanna, N. Y.	gal.	.37	—
Lone Star, Texas	gal.	.37	—
Lorain, Ohio	gal.	.30	—
Minaqua, Colo	gal.	.35	—
Philadelphia, Pa	gal.	.37	.39
Pittsburgh district	gal.	.30	.35
Sparrows Point, Md	gal.	.37	—
Syracuse, N. Y.	gal.	.37	—
Terre Haute, Ind	gal.	.35	—
Wyandotte, Mich	gal.	.38¼	—
Youngstown, Ohio	gal.	.35	—
Benzophenone, dms	lb.	1.40	1.70
Benzonitrile, dms., c.l., works	lb.	.46¾	—
l.c.l., works	lb.	.47	—
Benzotrichloride, cbys., frt. equald	lb.	.18	.20
Benzoyl chloride, cbys., dms., c.l., works, frt. equald	lb.	.20½	.23½
l.c.l., same basis	lb.	.21½	.24½
Peroxide, pure, fib. ctns., works	lb.	.90	1.05
Benzyl acetate, l.t.c., cns., dms	lb.	.65	1.05
Alcohol (see Alcohol, benzyl).			
Benzoate, USP, l.f.c., cns., dms	lb.	.80	—
Chloride, tech., cbys., c.l., works, frt. equald	lb.	.21	—
l.c.l., same basis	lb.	.24	—
High grade benzyl chloride, 2c. higher.			
Cinnamate, cns	lb.	3.00	4.00
Formate, cns	lb.	1.60	2.10
Propionate, bots	lb.	1.35	1.80
Salicylate, bots	lb.	1.65	1.85
Benzylidinacetone, bots	lb.	1.68	2.00
Benzylisoeugenol, cns	lb.	8.60	9.00
Berberine bisulphate, cns	lb.	35.00	36.25
Hydrochloride, bots	lb.	35.00	36.25
Berberis root, bls	lb.	.32	.35
Betagammapicoline, 5°, dms., c.l., works	lb.	.29½	—
l.c.l., works	lb.	.30	—
Betamethylnaphthalene, 32°C m.p., dms., works	lb.	.90	—
Betanaphthol, resublimed, dms., works	lb.	.78½	—
tech., bbls., c.l., works	lb.	.32½	—
l.c.l., works	lb.	.34½	—
Benzoate, fib dms., works	lb	3.00	—
custom contract	lb.	1.65	1.85
Salicylate, dms	lb	5.00	—
Sulphate, cns	lb.	35.00	36.25



How to make money

on next year's insects and weeds

Next year's insects and weeds can be profitable to you if you can sell insecticides and herbicides to kill them. While this year's usage of chemicals may not have been as great as anticipated, 1953 *can* bring an entirely different story.

Be ready to profit next year. Make sure your stocks are ample. If your inventory is low, place your contract for insecticides and herbicides *NOW*. Unexpected seasonal demands often have made it our unpleasant lot to decline orders from late buyers.

For information and quotations on Monsanto Insecticidal and Herbicidal Chemicals, contact the nearest Monsanto Sales Office or write MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 1700 South Second Street, St. Louis 4, Missouri.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle, Twin Cities. In Canada, Monsanto Canada Limited, Montreal.

MONSANTO HERBICIDAL CHEMICALS

2,4-D ACID and ESTERS
2,4,5-T ACID and ESTERS
MCP ACID (2-Methyl-4-Chlorophenoxyacetic Acid)
SANTOBRITE* (Sodium Pentachlorophenate, Tech.)
SANTOPHEN* 20 (Pentachlorophenol, Tech.)
IPC
3-CHLORO-IPC

MONSANTO INSECTICIDAL CHEMICALS

SANTOBANE* (DDT)
SANTOCHLOR* (para-Dichlorobenzene)
SANTOPHEN 20 (Pentachlorophenol, Tech.)
NIFOS*-T (Tetraethyl Pyrophosphate, Tech. For agricultural use only)
NIRAN* (Parathion. For agricultural use only)

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MONSANTO
CHEMICALS—PLASTICS

SERVING INDUSTRY... WHICH SERVES MANKIND

Betanaphthylamine—Butyric Ether

Betanaphthylamine, tech., bbls., works	lb.	1.05	1.10
Betaphenylethylamine, dms., works, 1,000-lb. lots	lb.	1.10	—
smaller lots	lb.	1.15	1.40
Betapicoline, 98%, dms., works	lb.	1.05	—
Bath root, bls.	lb.	.40	.41
Biotin, cryst., bots.	gram	10.00	—
Bismuth chloride, jars	lb	5.11	—
Hydroxide, dms	lb	4.65	—
Metal, bxs., ton lots	lb	2.25	—
Nitrate, cryst., dms.	lb.	2.10	2.17
Oxide, anhydrous, dms.	lb.	4.47	5.05
Oxychloride, dms.	lb.	4.37	4.42
Phenolsulphonate, fib. dms.	lb	5.23	—
Subcarbonate, USP, dms.	lb	3.30	—
Subgallate, NF, fib. dms.	lb	3.15	—
Subiodide, fib. dms.	lb	5.37	—
Subnitrate, NF, dms.	lb	2.62	—
Subsalicylate, USP, dms.	lb.	3.50	—
Bismuth-ammonium citrate, USP, powd., jars	lb.	4.22	—
Black, acetylene, bgs., c.l., works	lb.	.16	—
cs. l.c.l., ship't point	lb.	.20	.22
Bone, dms., t.c.l., frt. alld	lb.	.14¾	.21
Pacific coast bone black prices, 2c. per lb. higher.			
Carbon, channel, heads, bulk c.l., works	lb	.07	—
bgs., c.l., works	lb.	.0740	—
l.c.l., dlvd. or whse	lb.	.1225	—
uncompressed, regular, bgs., c.l., works	lb.	.10	—
l.c.l., dlvd. or whse	lb.	.10	—
furnace, fast extruding, bgs., c.l., works	lb.	.06	—
ctns., l.c.l., whse	lb	.10	—
Black, carbon, high abrasion, bulk, c.l., works	lb.	.0750-	—
bgs., c.l., works	lb.	.0790-	—
l.c.l., dlvd. or whse.	lb.	.1250-	—
high modulus, bgs., c.l., works	lb.	.0550-	—
ctns., l.c.l., whse	lb.	.0950-	—
semi-reinforcing bgs., c.l., works	lb.	.04	—
ctns., l.c.l., whse.	lb.	.06	—
Charcoal (see C).			
Graphite (see G).			
Iron oxide, pure, bgs., c.l., works	lb.	.1173-	—
l.c.l., works	lb.	.12	—
Lamp, bgs., c.l., works	lb.	.16	.45
Mineral, bgs., works	lb.	.0160-	.0675
Black ash (see Barium sulphide).			
Blackberry, root bark, bls.	lb.	.32	.35
root, bls.	lb.	.15	.16
Black dyes (see Dyes).			
Black haw, root bark, bls.	lb.	.65	.70
tree bark, bls.	lb.	.40	.42
Black Indian hemp root, bls.	lb.	.60	.61
Blane fixe, dry, by-product, bgs., c.l., works	ton	100.00	—
l.c.l. works	ton.	110.00	—
direct process, bgs. c.l., works	ton	90.00	—
l.c.l., works	ton	100.00	—
N. Y. whse	ton	120 00	130 00
pulp, 66⅔% bbls. c.l., works	ton	84.00	—
l.c.l. same basis	ton	92 00	—
Bleaching powder, dms. c.l. works	100 lbs	5.02	—
l.c.l., works	100 lbs	6.52	—
Blood, dried, 16-16½% ammo., bgs., unit-ton		7.75	—
high-grade, unground, 16-17% ammon., bgs., Chicago, unit-ton		8.00	—
soluble, bgs., c.l.	lb.	.17	.18½
l.c.l.	lb.	.18	.25
Bloodroot, bls.	lb.	.55	.56
Blue, alkali, dry, bbls., dlvd. N. of Tenn. and N. C., E. of Miss R. including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis	lb.	2.00	—
toner, bbls., litho flushed, same basis	lb.	1.10	—
Chinese, bbls., same basis	lb.	.39¼	.45
Cobalt, genuine, bbls. same basis	lb.	4.80	—
imitation (see Blue, ultramarine).			
Copper-phthalocyanine, full strength, bbls., same basis	lb.	3.85	—
resinated, bbls. same basis	lb.	2.40	—
water dispersable	lb.	1.54	—
Iron (see Blue, Chinese, Milori, Potash, Prussian and Soda).			
Methyl violet toner, molybdated, PMA bbls., same basis	lb.	2.00	—
tungstated, PTMA, bbls. same basis	lb.	4.05	—
Milori, bbls., same basis	lb.	.39¼	.45
Peacock, fugitive, 100% color strength, bbls. same basis,	lb.	.75	—
Potash, CP, bbls., same basis	lb.	.56	—
Prussian, insoluble, bbls., same basis	lb.	.39¼	.45
soluble, bbls. same basis	lb.	48	—
Soda, C.P., bronze, bbls., same basis	lb.	.39¼	.45
Ultramarine, cobalt type, dry or pulp, bbls., same basis	lb.	.28	.30½
regular types, dry bbls., same basis	lb.	.15	.33½
Blue, Victoria toner, molybdic, PMA, bbls.	lb.	2.20	—
tungstated, PTMA, bbls.	lb.	4.35	—

Blue, dry colors, dlvd. prices ½c. higher Ala., Fla., Ga., La. (Shreveport, 1½c.), Miss., N. C., S. C., Tenn., Tex. (El Paso, 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph, 1.6c. higher. Pac. Coast, Denver, Pueblo, Salt Lake City, Wichita frt. equalized with Chicago.

Blue dyes are listed under Dyes.

Blueflag, rust, bls.	lb.	.43	.46
Bluestone (see Copper sulphate).			
Blue vitriol (see Copper sulphate).			
Boldo leaves, bls.	lb.	.11	.13
Bonemeal, raw, 4½% ammon., 50% phos. bgs., works, E	ton.	70.00	Nom.
steamed, works, E	ton.	75.00	—
Bone phosphate, defluorinated (see D).			
of lime (see Calcium phosphate, tribasic)			
precipitate, (see Calcium phosphate tribasic, NF, precip.)			
Bones, raw, bulk, Atlantic ports	ton.	60.00	—
Boneset leaves and tops, bls.	lb.	.17	.20
Borage flowers, bls.	lb	.40	.49
Borax, tech., anhydrous, bgs., c.l., works	ton.	74.50	—
ton lots, ex whse. N. Y. or Chi	ton.	120.25	—
less ton lots, same basis	ton.	125.25	—
bulk, c.l. works	ton	67 50	—
crystals, 99½%, bgs., c.l., works	ton.	63 75	—
ton lots, ex whse. N. Y. or Chi	ton.	109.50	—
less ton lots, same basis	ton.	114.50	—
bbls., c.l. works	ton.	88 25	—
ton lots, ex whse. N. Y., or Chi	ton	134.00	—
less ton lots, same basis	ton.	139.00	—
bulk, c.l. works	ton	59 25	—
granular, 99½%, bgs., c.l., works	ton.	37.75	—
less ton lots, same basis	ton.	88 50	—
ton lots, ex whse. N. Y. or Chi	ton.	83.50	—
bbls., c.l., works	ton	62 25	—
ton lots, ex whse. N. Y. or Chi	ton.	108 00	—
less ton lots, same basis	ton.	113.00	—
bulk, c.l., works	ton.	33.25	—
powder, bgs., c.l., works	ton	42 75	—
ton lots, ex whse. N. Y. or Chi	ton.	88 50	—
less ton lots, same basis	ton.	93.50	—
bbls., c.l., works	ton.	67 25	—
ton lots, ex whse., N. Y. or Chi	ton.	113.00	—
less ton lots, same basis	ton.	118.00	—
bulk, c.l., works	ton.	38 25	—

Borax packed in kgs. $45.50 per ton higher than in paper bgs. UPS borax $15 per ton higher.

Bordeaux mixture, bgs., c.l., works, frt. alld. or nearest whse. point	lb.	.161	.221
t.c.l., same basis	lb.	.171	.241
Borneol, cns.	lb	2.25	2.50
Borontrifluoride gas, cyls., truckload, works	lb.	.62	—
less truckload, works	lb.	.70	—

Brazilwood extract (see Hypernic extract).

Brimstone (see Sulphur).

Bromine purified cs., c.l., frt. alld. E. of Rockies	lb.	.25	—
1,000-lb lots, same basis	lb.	.27	—
dms., lead-lined, dlvd	lb.	.25	—
Bromoform, pharmaceutical grade, bots	lb.	1.62	2.60
cbys.	lb.	1.52	—
Bromstyrol, bots.	lb.	5.40	5.70
Bronze powder, aluminum (see A).			
Gold, litho, cns., dms., works,	lb.	.75	.85
moulding, cns., dms., works	lb.	.85	1.00
printing ink, cns., dms., works	lb.	1.05	1.25
radiator, cns., dms., works	lb.	.80	.85
Broomtop, bls.	lb.	.30	.35
Brown iron oxide, pure, bgs., c.l., works	lb.	.1275-	—
l.c.l., works	lb.	.13	—
Oxide, metallic, bgs., works	lb.	.0375-	—
Sap, crystals, bgs., works	lb.	.12	—
powdered bgs	lb.	.13	—
Sienna, burnt, paper bgs., c.l., works	lb.	.04¼-	.15¼
l.c.l., works	lb.	.04½-	.15½
raw, paper, bgs., c.l., works	lb.	.04½-	.13
l.c.l., works	lb.	.04¾-	.13¼
Umber, burnt, American, bgs., c.l., works	lb.	.06	—
l.c.l., works	lb.	.06¼-	—
Turkey type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y	lb.	.06¼-	—
l.c.l., works	lb.	.06½-	—
raw, American, bgs., works	lb.	.06¼-	.06½
Turkey type bgs., works	lb.	.06¼-	.06¼
Vandyke, bbls. works	lb.	.11	—
Brucine, cns., 100-oz. lots	oz.	.30	.32
Sulphate NF, cns., 100-oz. lots	oz.	.26	.29
Bryonia root, bls.	lb.	.22	.34
Buchu leaves, bls.	lb.	.35	.40
Buckthorn bark, bls.	lb.	.13	.17
cut and sifted, bls.	lb.	.18	.23
Berries, bgs.	lb.	.80	.90
Burdock root, bls.	lb.	.23	.26
Butadiene, cyls, refinery	lb.	.23	—
tanks, same basis	lb.	.12½-	—
Butane, indust., tanks, group 3	gal.	.05	—
Butternut bark, bls.	lb.	.23	.25
Butyl acetate fermentation, normal, dms., c.l., frt. alld.	lb.	.14¾-	—
t.c.l., same basis	lb.	.15½-	—
tanks, same basis	lb.	.13	—
synthetic normal, dms., c.l., dlvd. E.	lb.	.14¾-	—
t.c.l., same basis	lb.	.15½-	—
tanks, same basis	lb.	.13	—
secondary, dms., c.l., dlvd. E.	lb.	.13¼-	—
t.c.l., same basis	lb.	.14	—
tanks, same basis	lb.	.11¼-	—
Alcohol (see Alcohol butyl).			
Aldehyde, dms., c.l., dlvd.	lb.	.22½-	—
l.c.l., dlvd.	lb.	.23½-	—
tanks, dlvd.	lb.	.20¾-	—
Chloride, dms., c.l., works	lb.	.37½-	—
l.c.l., works	lb.	.30	—
Ether (see Ether butyl).			
Lactate, dms., c.l., frt. alld. E. of Rockies	lb.	.34¾-	—
l.c.l., same basis	lb.	.35¾-	—
tanks, same basis	lb.	.33	—
Laurate, dms., works	lb.	.39	—
Methacrylate normal, dms., less truckloads, works	lb.	.70	—
Oleate, refd., dms., l.c.l., works	lb.	.36	—
Phenylacetate, dms	lb	4.30	4.60
Phthalate (see Dibutyl phthalate).			
Stearate, dms., l.c.l., frt. equald	lb.	.24	.27½

Butylamine (see Mono., Di- or Tri-).
Butyric ether (see Ethyl butyrate).

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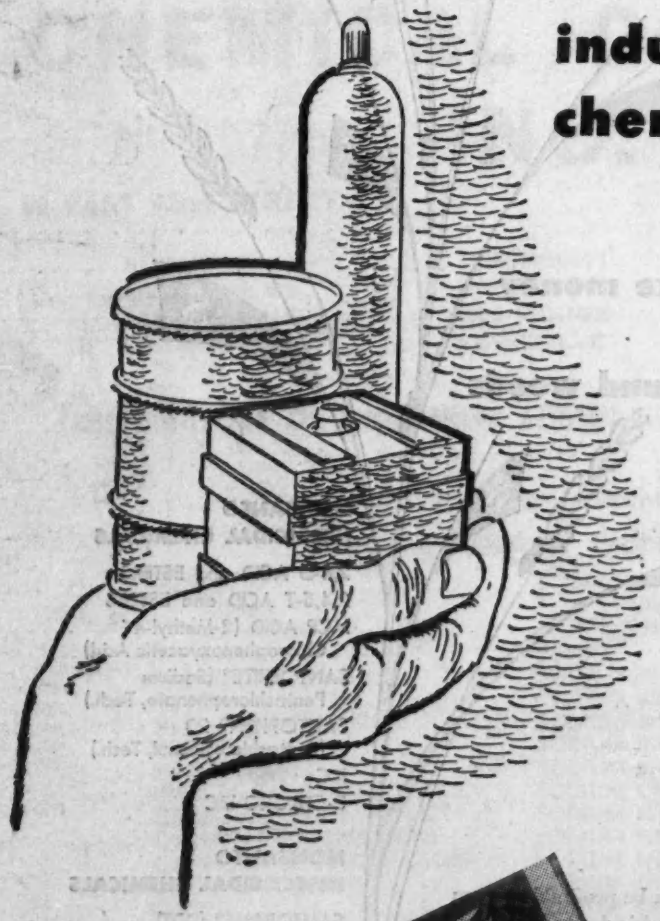

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C

Cacao butter (see Cocoa butter).
Cadmium iodide, jars lb. 5.56 - 6.75
Metal, ingots or sticks, cs., dlvd. lb. 2.00 - —
Stearate, 50-lb. ctns., l.c.l., frt. equald lb. 1.25 - —
Caffeine, natural, USP, cryst., dms., 100 lbs. or more lb. 3.30 - —
anhydrous, dms. lb. 3.50 - —
synthetic, USP, cryst., dms., 100 lbs. or more lb. 3.30 - —
anhydrous, dms., 100 lbs. or more lb. 3.50 - —
Citrated, USP, dms., 100 lbs. or more lb. 2.35 - —
Calamine, USP, dms lb. .34 - —
Calamus root, dom., natural, bgs. lb. .25 - .30
imported, bleached, bls. .70 Nom.
stripped, bls lb. .30 - .40
Calciferol, cryst., vials, 250 grams or more, works gram. .95 - —
25 to 249 grams, works gram. 1.00 - —
in edible oil dms., 10,000 or more standard units (1 standard unit equals 1,000,000 USP units), works unit. .04¾- —
1,000 to 10,000 standard units, works unit. .05¼- —
less than 1,000 standard units, works unit .05¾- —
Calcium acetate, bgs., dlvd 100 lbs. 3.09 4.00
Arsenate dealers, dms., c.l., whse., works, frt. alld. on 96 lbs. or over lb. .10 - .11
l.c.l., same basis lb. .11 - .12
Bromide, NF, jars lb. .90 - .92
Carbide, standard generator size, dms., c.l., dlvd. ton. 134.40 - —
Carbonate (see Chalk and Whiting).
Chloride, cryst. purified, bbls., jars lb. .28 - .30
flake, 77-80%, paper bgs., c.l., works, frt. equald ton. 25 00 - —
liquor, 40%, tankcars, works, frt. alld ton. 10.50 - —
pellets, bgs., c.l. works ton. 31.25 - —
powder, bgs., c.l., works ton. 35 65 - —
solid, 73-75%, dms., c.l., frt. equald ton. 23.50 - —
l.c.l., works, same basis ton. 32.00 -69.00
USP gran., bbls lb. .30 - —
Chromate, bgs., frt. equald lb. .29½- .30
Cyanide, dms., dlvd E. of Rockies. lb. .30 - .50
Gluconate, AA, bbls., dms lb. .65 - .74
USP, bbls., dms lb. .58 - .67
Glycerophosphate, NF, fib. dms lb. 2.00 - 2.15
Hydride, dms., works lb. 2.20 - 4.00
Hydrochlorite, high test, cns., cased (45 lbs.) dlvd. E. of Rockies cs. 21.00 -23.00
100-lb. lots, same basis dm. 25.25 -29.85
Hypophosphite, dms., ton lots or less lb. .90 - .93
Iodide, jars lb. 4.32 - —
Lactate, USP, dms., 10,000-lb. lots or more, works lb. .40 - —
smaller lots, works lb. .41 - .48
Mancelate, USP, dms., works lb. 2.10 - 2.25
Naphthenate, liq., 4% Ca, dms., frt. equald lb. .25¾- —
Nitrate, tech., bbls., works lb. .10 - .13
fertilizer grade, bgs., c.l., Los Angeles ton. 49.25 - —
Pantothenate, dextro, jars, 100 grams or more, frt. adjusted gram. .07½- —
Para-aminosalicylate, fib. dms., 1,000-lb. lots or more, frt. adjusted lb. 7.00 - —
smaller lots, same basis lb. 7 05 - 7.50
Phenolsulphonate, dms lb. 70 - —
Phosphate, dibasic, USP, bgs., c.l., 100 lbs. 7.10 - —
l.c.l. 100 lbs. 7.60 - 7.95
feed grade, bgs., c.l., works ton. 90.00 - —
l.c.l., bgs., works ton. 95.00 - —
monobasic, bgs., 10,000-lb. lots, works, frt. equald lb. .0625- —
smaller lots, same basis lb. .0675- —
tribasic, precip., NF, bgs., c.l., works 100 lbs. 7.10 - —
l.c.l., works 100 lbs. 7.45 - —
Phytate, bgs works lb. .28 - —
Resinate, precip., dms., frt. alld., works lb. .27¾- —
Silicate, hydrated, bgs., c.l., works, lb. .06 - —
l.c.l., works lb. .06½- —
Stearate, ctns., c.l. lb. .35 - —
ton lots lb. .36 - —
less ton lots lb. .37 - —
Sulphate (see Gypsum).
Calcium-strontium sulphide, phosphorescent, steel pails, 100 lb. to 999 lb. lots, works lb. 3.60 - 3.50
fine particle size, same basis, works lb. 2.85 - 3.75
Calendula flowers, bls lb. .50 - .65
Calomel, USP powd, dms lb. 4.02 - 4.05
Camphene, dms., incl., c.l., works. lb. .1830- .1930
l.c.l., same basis lb. .1880- .2015
tanks, same basis lb. .1394- .1660
Chlorinated 67-69% (see Toxaphene).
Camphor monobromated, NF, dms., kgs lb. 3.00 - 3.10
natural, USP powd. 100-lb. lots, bbls. lb. .50 - .52
tablets, 1-oz., ½-oz., cs. lb. .63 - .65
synthetic, tech., bbls., 10 bbls., 1,500-lb. lots lb. .55½- —
smaller lots lb. .56 - .66
USP gran., powd., bbls., 2,000-lb. lots lb. .60 - —
1,000-lb. lots lb. .61 - —
smaller lots lb. .62 - —
tablets, tins, 2,000-lb. lots lb. .93 - —
1,000-lb. lots lb. .94 - —
smaller lots lb. .95 - —
Canada balsam (see Fir balsam).
Canella alba bark, bls lb. .25 - .33
Cantharides, Chinese, cs lb. 1.05 - 1.20
powd. bxs lb. 1.15 - 1.40
Russian, bgs lb. 2.60 - 3.25
powd. bxs lb. 2.90 3.50
Capsicum (see Pepper, red).
Oleoresin, NF, from domestic pepper, dms. lb. 4.25 - 5.75
from African pepper, dms lb. 4.75 - 6.25
Caramel coloring, NF, bbls gal. 1.05 - 1.20
Caraway seed, Dutch, bgs lb. .10 - .10½
Carbazole, 97%, bbls., ton lots, works lb. 1.25 - —
steel-dms., same basis lb. 1.20 - —
Carbinol, methylisobutyl, dms., c.l., dlvd lb. .15¼- —
l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13½- —
Carbon bisulphide, 50-gal. dms., c.l., works, frt. alld. competitive points lb. .0700- —
l.c.l., same basis lb. .0800- —
5-gal. dms., c.l., same basis lb. .0950- —
l.c.l., same basis lb. .1050- —
tankcars, same basis lb. .0490- —
Dioxide, industrial, wholesale, cyl. lb. .06 - —
Tetrachloride, CP, dms., works lb. .1097- .1197
NF, chys lb. .17 - .18
tech., dms., c.l., E. of Rockies, frt. alld lb. .0847- —
W. of Rockies, f.o.b. stock-points lb. .0897- —
Carbon tetrachloride, tech., dms., l.c.l., E. of Rockies, frt. alld. lb. .1047- —
W. of Rockies, f.o.b. stock-points lb. .1107- —
tanks, E. of Rockies, frt. alld. lb. .0773- —
W. of Rockies, f.o.b. stock-points lb. .0822- —
Carbromal, NF, dms., 100-lb. lots, works lb. 4.00 - 4.25
smaller lots, works lb 4.10 - 4.75
Cardamom fruit, bleached, cs lb. 3.75 - 4.10
medium, cs lb. 4.00 - —
decorticated, Alleppey, cs lb. 3.00 3.10
Guatemalan, cs lb. 2.40 - 2.45
Mangalore type, cs lb. 2.50 - 2.53
green, Alleppey, bgs., afloat lb. 1.90 - 1.95
Ceylon, bgs lb. 2.15 - 2.20
seed (see Cardamom fruit, decorticated).
Carmine No. 40, NF, bulk, 100 lbs. or more, dlvd lb. 5.50 - —
smaller lots, dlvd lb. 5.65 6.15
Carotene, technical, 1,350,000 A units per gram, tins, works, zm. .50 - —
in carrot oil, 5,000,000 to 8,000,000 A units, per lb., dms., works, million units. .18 - —
microcrystalline, in oil, 400,000 A units per gram, tins, works, million units. .30 - —
Carvol, bots. lb. 7.50 - 7.75
Cascara sagrada bark, bulk lb. .35 - .36
Casein, dom., acid-precip, standard, bgs., 10,000-lb. lots or more, ship't point lb. .28 - .32
premium bgs., 10,000-lb. lots or more, ship't point lb. .36½- .40
imported, Argentine, acid-precip., grd., 100-bg. lots or more, ex dock lb. .21 - —
Cashewnut shell liquid, treated, dms., c.l., Newark, N. J. lb. .32 - —
ton lots, same basis lb. .23 - —
dm. lots, same basis lb. .25 - —
Cassia, Batavia, cuttings, bls lb. .16 - .16½
longstick lb. .20 - .20½
shortstick, bls lb. .16 - .16½
China, Canton, Kwangsi rolls, select, cs lb. .26 Nom.
broken, bls. lb. .23 - —
Honan, Yunnan, scraped, bls lb. .20 Nom.
unscraped, bls. lb. .27½ Nom.
Saigon, broken, bls lb. .36 - .38½
medium, bls lb. .44 - .45
thin, bls lb. .50 - .52
Cassia buds, bgs lb. .65 - .70
Fistula, bskts lb. .25 - .30
Castor beans, bgs. f.o.b. Brazilian ports, long ton. 190.00 Nom.
Oil (see Oil, castor).
Pomace, bgs., c.l., works ton. 37.25 —
Castoreum, artificial, cns lb. 9.00 - 9.25
natural, cns lb. 7.00 -30.00
Catechol, CP, cryst., fib. dms., works lb. 2.17½- —
resublimed dms., works lb. 4.20½- —
Catnip leaves, southern, bls lb. .65 - .70
Celery seed, French, bgs lb. .37 - .37½
Indian, bgs lb. .28 - .28½
Celluloid scrap (see Pyroxylin scrap).
Cellulose acetate flake, ctns., dlvd. lb. .40 - .45
extrusion compounds, translucent, metallic pearls, special black, dms., c.l., same basis lb. .52 - —
l.c.l., same basis lb. .53 - .59

Cacao Butter—Chalk, Precipitated

Cellulose acetate molding, composition, translucent, metallic pearls, special black, dms., c.f., frt. alld. lb. .48 - —
l.c.l., same basis lb. .49 - .55
reprocessed black, dms., l.c.l., same basis lb. .43 - .49
Acetate butyrate, flake, 16% butyryl content, standard cartons, works lb. .64 - —
17% butyryl content, standard cartons, works lb. .54 - —
27% butyryl content, standard cartons, works lb. .64 - —
33% butyryl content, low viscosity, standard cartons, works lb. .68 - —
medium viscosity same basis lb. .54 - —
50% butyryl content, standard cartons, works lb. .63 - —
molding composition, plain colors, pearls, transparents, special black, dms., l.c.l., frt. alld. lb. .64 - .71
reprocessed black, dms., l.c.l., same basis lb. .53 - .58
Triacetate, flake ctns., works, frt. alld. on 100-lb. lots or more lb. .50 - —
Cerium hydrate, dms., works lb. 1.44 1.60
Oxalate, NF, bbls., bgs., works lb. No prices.
Oxide, optical grade, bgs., 50-lb. lots or more, works lb. 1.85 - 2.00
smaller lots, works lb. 1.90 - 2.10
Chalk, precip., cosmetic, dentifrice, drugs, bgs., c.l., works lb. .0295- .033
l.c.l., ex whse lb. .0395- .05
paint, bgs., c.l., works ton. 40 00 —
papermakers, bgs., c.l., works, ton. 32.50 -40.00
rubber makers, bgs., c.l., works, ton. 55.00 -60.00

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Chamomile flowers, Hungarian and Roman, cs. lb. .90 - .95 / .80 - .90
Charcoal, activated, NF, fib. dms., c.l., works lb. .25 - .32
5-ton lots, works lb. .26½ - .32½
smaller lots, works lb. .27 - .50
Bone (see Black, bone).
Hardwood, briquets, bgs., c.l., works ton. 77.00 -88.00
bulk, c.l., works ton. 70.40 - —
granular, bgs., works ton. 77.00 - —
Pinewood, gran., powd., bgs., c.l., works, South ton. 43.50 - —
l.c.l., works, South ton. 43.50 -53.50
lump bgs., c.l., works, South ton. 40.00 - —
l.c.l., works, South ton. 50.00 -60.00
bulk, c.l., works, South ton. 33.50 - —
Chestnut extract, 25% tannin, bbls., c.l., works lb. .05 10- —
l.c.l., works lb. .05 43- —
tanks, works lb. .04 25- .04 40
powd., 60% tannin, bgs., extra, c.l., works lb. .10 92- —
l.c.l., works lb. .11 65- —
Chloral, tech., 94% min., dms., c.l., works lb. .23 - —
l.c.l., works lb. .24 - —
tanks, works lb. .21 - —
Hydrate, USP, 40-lb. jars, 1,000-lb. lots lb. 1.30 - —
500-lb. lots lb. 1.33 - —
100-lb. lots or less lb. 1.25 - 1.40
Chloramine T, NF, bbls. works lb. .75 1.00
Chlordane, agricultural, dms., pails, c.l., frt. alld lb. .65 - —
l.c.l., frt. alld lb. .66 - .73
refined, dms., c.l., frt. alld lb. .75 - —
l.c.l., frt. alld lb. .76 - .83

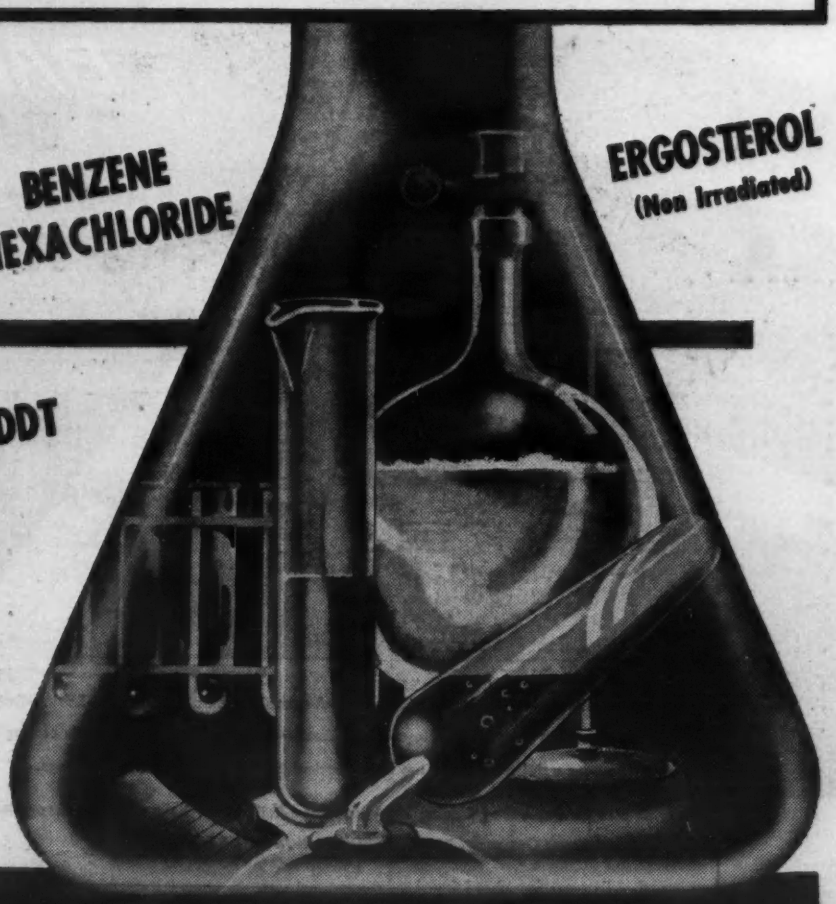
Chlorinated paraffin, 42%, dms., c.l., frt. alld. lb. .14 - —
l.c.l. lb. .14½ - —
70%, dms., c.l., same basis lb. .18 - —
l.c.l., same basis lb. .19 - —
Rubber, 5, 10, 20 cps., ctns., c.l., works lb. .55 - —
l.c.l., works lb. .57 - —
125, 1,000 cps., ctns., c.l., works lb. .60 - —
l.c.l., works lb. .61 - .62
Chlorine, liquid, cyls., c.l. lb. .08¾ - —
l.c.l., N.Y., stock points lb. .10¼ - —
tanks, single units, works, frt. equald 100 lbs. 2.70 - —
W. of Rockies 100 lbs. 2.82½ - —
multiple units, 3 cars, works, frt. equald 100 lbs. 3.10 - —
2 cars, same basis 100 lbs. 3.60 - —
1 car, same basis 100 lbs. 4.46 - —
Chloroform, tech., dms., c.l., divd. E lb. .18 - .182
l.c.l., same basis lb. .192 - .20
tanks, same basis lb. .17 - .171
USP, dms. lb. .30 - .35
Chloro(4)-2-Toluidine, bbls. lb. 1.38 - —
Chlorophyll, oil soluble 4%, not fixed, tins, pails, works lb. 4.25 - —
copper fixed, 6½%, tins, pails, works lb. 4.25 - —
sodium-copper, dms., pails, aqueous sol., 4%, works. lb. 3.75 - —
5%, pails, dms., works lb. 4.00 - 4.80
14%, dms, works lb. 8.90 - —

Chlorophyll, oil soluble, concentrated, dom., 50%, dms., works, basis 100% lb. 56.50 -60.00
75%, dms., works, basis 100% lb. 60.00 - —
90%-100%, dms., works, basis 100% lb. 60.00 -67.00
imported, 60%, dms., basis 100% lb. 60.00 - —
75%, dms, basis 100% lb. 60.00 - —
90%, dms., basis 100% lb. 60.00 - —
Chloropicrin, com'l, bots. lb. 1.50 - —
cyls., 180 lbs., frt. alld. lb. .95 - —
100 lbs., same basis lb. .97 - —
25 lbs., same basis lb. 1.22 - —
Cholesterol, USP, fib. dms., 100-lb. lots, lb. 8.25 - 9.50
Choline bitartrate, fib. dms., frt. adjusted lb. 1.70 - 1.95
Chloride, fib dms., same basis lb. 1.70 - 1.95
Dihydrogen citrate, fib. dms., same basis lb. 1.70 - 1.95
Chromium acetate, powd., 72% Cr., bbls., works lb. No stocks.
solut., 7½% bbls., works lb. .08½ - —
cbys., works lb. .10¼ - —
8½%, bbls., works lb. .09 - —
cbys., works lb. .10¾ - —
Fluoride, bbls., works lb. .44½ - —
Green (see Green, chrome).
Oxide (see Green, chromium oxide)
Oleate, solid, bbls lb. .49 - —
Trioxide, NF, bots lb. .83 - .89
Yellow, (see Yellow, chrome).
Chrysarobin, USP, bots. lb. 6.50 - 8.00
Cinchona bark, NF, red, broken, bgs lb. .28 - .30
yellow, broken, bgs lb. .28 - .30
Cinchonidine, cryst., cns. 100 oz.-lots oz. .71 - .72
Sulphate, cns., 100 oz.-lots oz. .37 - .40½

Cinchonine, cryst., cns., 100 oz.-lots, oz. .52 - .57
Sulphate, NF, cns., 100 oz.-lots oz. .27 - .30½
Cinchophen, NF, heavy density, dms., frt. adjusted lb. 3.70 - 4.05
standard density, dms., same basis lb. 3.50 - 3.85
Cinchophen-sodium, dms., frt. adjusted lb. 4.50 - 4.85
Cinnamic alcohol (see Alcohol cinnamic)
Aldehyde, NF, cns., dms lb. 1.05 - 1.30
Cinnamon, Ceylon, No. 2, bls. lb. .25½ - .26
Citral, bots., cns lb. 3.20 - 3.75
Citronellal, bots., dms lb. 1.60 - 2.00
Citronellol, bots., dms lb. 1.80 - 2.40
Civet, artificial, bots lb. 13.75 -15.00
natural, bots oz. 3.50 - 7.00
Clay, ball, dom., crushed, bulk, Tennessee ton. 10.00 -12.00
airfloated, bgs., c.l., Tennessee ton. 19.50 - —
purified, bgs., c.l., Tennessee ton. 20.50 - —
imported, lump, bulk, Atlantic port, long ton. 27.00 -30.00
airfloated, bgs., c.l., Atlantic port, long ton. 43.00 -45.00
pulverized, bgs., l.c.l., all ports ton. 55.00 - —
97%, 200 mesh, bgs., c.l., Georgia ton. 54.00 -56.00
China, dom., dry-grd., air-float, 99%, 300 mesh bgs., c.l., works ton. 11.50 -14.50
l.c.l., works ton. 35.30 - —
bulk, c.l., works ton. 8.50 -11.50
200 mesh, bgs., c.l., works ton. 13.50 -17.00
imported, white, lump, bulk, c.l., ex dock, Phila., Portland, Me gross ton. 20.00 -40.00
powd., bgs. c.l., ex dock net ton. 30.00 - —
l.c.l., ex whse net ton. 60.00 -65.00
Clove, Madagascar, bls lb. 1.62 Nom.
Zanzibar, bls lb. 1.61 - 1.62
Clover tops, red, bgs lb. 45 - .50
CMC, purified, high vis., (see Gum, cellulose).
standard low vis., bgs., 23,000 lbs. or over, works, frt alld lb. .60 - —
smaller lots, same basis lb. .62 - —
medium vis., bgs., 23,000 lbs. or over, works, frt. alld lb. .57 - —
smaller lots, same basis lb. .59 - —
technical, high vis., 58% purity, bgs., 20,000 lbs. or more, divd. E., 100% basis lb. .56 - —
2,000 to 20,000 lbs., divd. E. lb. .58 - —
less than 2,000 lbs., divd. E. lb. .62 - —
low vis., 62% purity, bgs. or fib. dms., c.l. divd. E., basis 100% lb. .46 - .47
l.c.l., divd. E., basis 100% lb. .48 - .49
58% purity, bgs., c.l., divd. E. basis net weight lb. .34 - —
l.c.l., divd E lb. .36 - —
47½% purity, bgs., c.l., divd., E., basis 100% lb. .46 - —
l.c.l., divd E lb. .48 - —
36½% purity, bgs., c.l., divd. E., basis net weight lb. .18½ - —
l.c.l., divd E lb. .20 —
Prices for technical grades of CMC West of the Rocky Mountains are 1c. per pound less than delivered prices.
Coaltar, coal gas, water gas, crude, resale dms. c.l. ex-whse. gal. .24 - .27½
l.c.l. ex-whse gal. .26 - .28½
tanks, ex-whse gal. .14 - .15
refined, resale, dms., c.l., ex-whse gal. .25 - .28½
l.c.l., ex-whse gal. .27 - .29½
tanks, ex-whse gal. .15 - .16
Cobalt acetate, 23.7% bbls., divd lb. 1.14¾ - —
Carbonate, 46%, powd., bgs., divd lb. 1.92¼ - —
Chloride, 24.2% Co., kgs., divd., lb. 1.10½ - —
Hydrate, 60-61% Co., bbls., divd lb. 2.52 - —
Linoleate, fused, 8½% Co., dms. lb. .64½ - —
liquid, 6% Co. dms lb. .53¼ - —
Metal, 97.99%, kgs., ex-whses lb. 2.40 - —
Naphthenate, liq., 6% Co., dms., lb. .42¾ - —
Nitrate, 20.1% Co., bbls., divd lb. .89¼ - —
Oxide, black, 70-71% Co., kgs lb. 1.76 - —
Phosphate, powdered, 32.1% Co., kgs., divd lb. 1.57¾ - —
Resinate, fused, 5% Co., dms lb. .27 - —
Sulphate, cryst., 21% Co., dms., divd lb. .81¼ - —
monohydrated, 33% Co., dms. divd lb. 1.28½ - —
Cocaine, USP, cns., 100-oz. lots oz. 15.00 - —
Hydrochloride, cns. 100-oz. lots oz. 11.75 - —
Cochineal, USP gray, bgs lb. .68 - .90
Cocillana bark, bgs lb. .16 - .17
Cocoa butter, bgs lb. .71 - —
Codeine, NF, cns. 100-oz. lots oz. 13.25 - —
Hydrochloride, cns., 100-oz. lots oz. 11.75 - —
Phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Sulphate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil (see Oil, codliver).
Cohosh root, black, bls lb. .22 - .25
Blue, bls lb. .17 - .18
Colchicine, USP, bots., cns oz. 65.00 -70.00
Colchicum root, bls lb. .45 - .60
Seed, bgs lb. .80 - 1.10
Collodion, USP, dms lb. .32½ - —
flexible, USP, dms lb. .34 - —
Colocynth pulp, bls lb. .30 - .35
Colombo root, bls., to arrive lb. .22 - —
Coltsfoot leaves, ozs lb. .25 - .30
Condurango bark, bgs lb. .17 - .18
Copaiba balsam, cns., dms lb. .95 - 1.75
Copper acetate, bbls., c.l. works lb. .34¾ - —
l.c.l., works lb. .35¾ - —
Carbonate 55% bgs., works lb. .22 - .23½
Chloride, anhyd., bbls., works lb. .34½ - —
crystals, bbls., works lb. .22¾ - —
Citrate USP 5-lb bots oz. 2.40 - —
Cyanide, tech., bbls., over 1,000-lb. lots or more lb. .613 - —
less than 1,000 lbs lb. .633 - —
Gluconate cns., dms lb. 3.00 - 3.24
Hydrate dms. frt. alld. E. Miss. lb. .36 .36½
Metal, electrolytic lb. .24¼ .27½
Naphthenate, liquid, 8% Cu, dms., frt. alld lb. .23¼ - —
Nitrate, tech. cryst., bbls., works. lb. .25¼ - —
Oleate, solid, 8% Cu, dms., works. lb. .45 - —
Oxide, black, bbls., works lb. .39 - .40
red, com'l, bbls., c.l., works lb. .43 - .45¼
l.c.l., works lb. .44 - .45½
Oxychloride-sulphate, bgs., frt. alld lb. .24¼ Nom.
Quinolinolate, fib. dms lb. 4.25 - 4.50
Resinate, precip., dms., frt. alld lb. .27½ —
Stearate, ton lots, works lb. .33½ .39½
less ton lots, works lb. .40½ —
Sulphate, cryst., 99%, bgs., c.l., works, 100 lbs. 8.95 - 9.35
l.c.l. 100 lbs 9.20 10.95
CP, cryst., gran., bbls., works lb 1615 —
monohydrated, 35%, dms., c.l., works 100 lbs. 14.95 -15.50

MONTROSE
CHEMICAL COMPANY

TRICRESYL PHOSPHATE
BENZENE HEXACHLORIDE
ERGOSTEROL (Non Irradiated)
TRICHLORO-BENZENE
DDT
LINDANE



SALES AGENTS R. W. GREEFF & CO., INC.
10 ROCKEFELLER PLAZA, NEW YORK, N. Y.
TRIBUNE TOWER, CHICAGO, ILLINOIS

Copper sulphate, tribasic, dealers, bgs., c.l., works, frt. alld. 100 lbs. 25.60 - —
l.c.l., works 100 lbs. 27.10 - —
USP, gran., cryst., dms. lb. .1615- .2500
Undecylenate, dms. lb. 2.90 3.00
Copperas, gran., bgs., c.l., works ton. 28.50 - —
l.c.l., divd. Metro area 100 lbs 3.00 - —
bbls., c.l., works ton. 34.00 - —
bulk c.l., works ton. 21.00 - —
Copra, Atlantic Gulf ports, c.i.f. ton. 185.00 - —
Pacific ports, c.i.f. ton. 180.00 - —
Coriander seed, Argentine, bgs. lb. .06½ .09
Czech, bgs lb. .07 .07½
Moroccan, bgs. lb. .05½- .06
Roumanian, bgs lb. .07½- .08
Corn sugar tanners, chipped, paper bgs. c.l. 60,000 lbs. min. 100 lbs. 7.30 - —
Syrup, 42°, dms., c.l. 100 lbs. 7.32 - —
l.c.l. 100 lbs. 7.47 - —
Cornsilk, bls lb. .12 .14
Corrosive sublimate, NF, cryst., dms., 50-lb. lots or more lb. 3.68 - —
gran. powd., dms., 50-lb. lots or more lb. 3.53 - —
Cottonroot bark, bls lb. .25 .28
Cottonseed hull ash, 52-30% potash bgs., divd., unit-ton. 1.50 - —
Meal, 41% protein, sacked, Memphis ton. 78.00 -80.00
Coumarin, cryst., NF, cns. lb. 2.94 3.15
powd., cans lb. 3.20 3.25
Cramp bark, NF, bls lb. .80 .90
Cranesbill root, bls lb. .40 .41
Cream of tartar, NF, dom., gran. or powd., dms., c.l. lb. .32 - —
bbls., 5,000 lbs. one shipment lb. .32½- —
smaller lots, bbls., kgs. lb. .33 - .36
imported, kgs lb. .25¾- —
Creosote carbonate, NF, bots., cbys. lb. 2.80 2.90
Coaltar, crude, tanks, works, frt. adjusted gal. .20 - —
solution, 80%, tanks, works, gal. .188 - —
refined, dms., c.l., works gal. .35 - —
l.c.l. same basis gal. .41 - —
tanks, same basis gal. .27 - —
Wood, beechwood, cbys., dms. lb. 1.35 - 1.40
hardwood, bots., cbys lb. 1.05 - 1.10
pinewood, dms gal. .31 - .32
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, dms., c.l., frt. equald. lb. .158 - —
l.c.l., same basis lb. .161 - —
ret. dms., c.l., same basis. lb. .155 - —
l.c.l., same basis lb. .16 - —
tanks, same basis lb. .145 - —
USP, non-ret. dms., c.l., same basis lb. .168 - —
l.c.l. same basis lb. .171 - —
ret. dms., c.l., same basis lb. .161/2- —
l.c.l., same basis lb. .17 - —
tanks, same basis lb. .155 - —
Crotonaldehyde, 91-93%, t.c.l., works. lb. .24¼- .25
Cryolite, nat., industrial, bgs., c.l., works 100 lbs. 10.50 - —
l.c.l., works 100 lbs. 11.25 -11.50
Insecticide, dealers, bgs., c.l., dlvd 100 lbs. 15.25 - —
l.c.l., dlvd. 100 lbs. 16.25 - —
Cube root, powd., 6% rotenone, bgs., works. lb. .23 - .25
Cubeb berries, XX NF, bgs lb. .45 - .52
powd., cs lb. .55 - .60
Culvers root, bbls lb. .60 - .61
Cumene, dms., c.l., works lb. .12 - —
l.c.l. works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs. lb. .15¼- .15½
Moroccan, bgs. lb. .22 Nom.
Syrian, bgs. lb. .17 Nom.
Turkish, bgs. lb. .14¾- .15
Cutch extract, 55% tannin bgs. ex dock, duty extra lb. .09¼- —
Cyanamide, fertilizer mixing grades, 20.6% N, gran. bgs., Niagara Falls, Ont., contract ton. 62.50 - —
pulv., 21% N, bgs., works, unit ton. 2.90 - —
Cyclohexane, tech., 95%, dms., c.l., dlvd. lb. .11 - —
l.c.l., divd. lb. .11¾- —
tanks, divd. lb. .09¼- —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E. lb. .24¼- .37¾
l.c.l., works, same basis lb. .25¼- .38¼
tanks, works, same basis lb. .23¼- .36¼
Cyclohexanone, tech., dms., c.l. lb. .26½- .30
l.c.l., works lb. .27 - .31
tanks, works lb. .25 - .29
Cyclohexylamine, dms., c.l., works. lb. .41½- —
l.c.l. works lb. .42½- —
tanks, works lb. .40 - —
Cyclopropane, CP, 2 lb. cyls., works. cyl. 42.00 - —
6 oz. cyls., works cyl. 12.00 - —
USP, hospitals, cyls., 40 gal. lots gal. .38 - —
100-gal. lots gal. .37 - —
200-gal. lots gal. .36 - —

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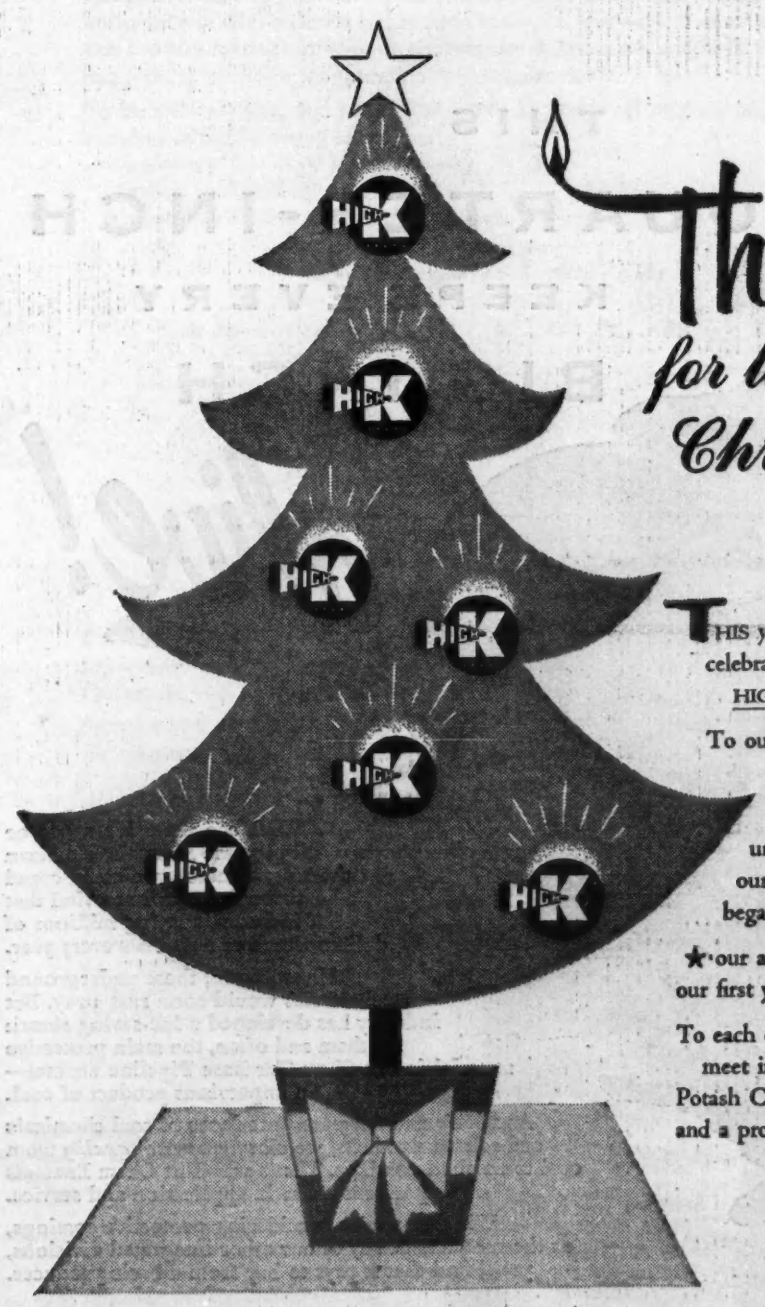
2, 4-D bbls., c.l., works, frt. equald. lb. .61 - —
l.c.l., same basis lb. .67 - —
2, 4-D isopropyl ester, dms., c.l., works. lb. .67 - —
l.c.l., works lb. .72 - .74
Damiana leaves, bls. lb. .28 - .30
Dandelion root, bls. lb. .45 - .50
DDD, tech., fine grd, fib, dms., c.l., works lb. .60 - —
l.c.l. works lb. .61 - —
DDT, fiber, dms., c.l., works, frt. equald. lb. .32 - .33
smaller lots, same basis lb. .35 - .36
Decanol, normal, tech., dms., c.l., dlvd lb. .419 - —
l.c.l. dlvd lb. .439 - —
tanks, dlvd lb. .394 - —
Deertongue leaves, bls lb. .42 - .43
Defluorinated phosphate, 13% P, paper bgs., works ton. 49.25 - —
18½% P, paper bgs., works ton. 62.75 -63.75
Rock, 14½% P, paper bgs., works ton. 50.00 - —
Degras, common, bbls lb. .11 - .12
crude, centrifugal, bbls lb. .18 - .20
neutral, less 2% fa., bbls lb. .30½- —
over 2% fa., bbls lb. .30 - —
Derris root, 5% rotenone powd., bbls lb. .32 - .35
Desoxyepnedrine hydrochloride, dextro, bots. lb. 25.00 - —
dextro-laevo, bots lb. 7.50 - —
Dextrin, corn, gum, paper bgs., c.l., N.Y. 100 lbs. 8.95 - —
l.c.l. 100 lbs. 9.10 - —
canary, paper bgs., c.l. 100 lbs. 8.69 - —
l.c.l. 100 lbs. 8.84 - —
dark, paper bgs., c.l. 100 lbs. 8.79 - —
l.c.l. 100 lbs. 8.94 - —
white, paper bgs., c.l. 100 lbs. 8.72 - —
Corn dextrin in cotton bgs. 25c. per 100 lbs. higher.
Potato, bgs. lb. .10½- .11
l.c.l. 100 lbs. 8.45 - —

Dextrose, USP, dms. lb. .17¾- —
Diacetone (see Alcohol, diacetone).
Diacetyl, flavor grade, bots lb. 4.50 - 4.60
laboratory grade, bots 100 grams 4.50 - —
tech., bots., works lb. 3.00 - —
Diamyl ether (see Ether, amyl).
Dianisidin, dms lb. 1.90 - —
Diatomaceous earth, dom., bgs., c.l., Atlantic coast ton. 52.00 -55.00
California ton. 42.00 -45.00
l.c.l., ex whse ton. 85.00 -90.00
purified, bgs., c.l., Atlantic coast ton. 65.00 - —
California ton. 53.00 - —
l.c.l., ex whse ton. 95.00 -100.00
Atlantic coast ton. 95.00 -100.00
Mexican, white, bgs., c.l., Atlantic coast lb. .03 - —
l.c.l., Atlantic coast lb. .06 - —
Dibenzyl sebacate, CP, dms., c.l., works lb. .92 - —
l.c.l., works lb. .93¾- —
tanks, works lb. .91 - —
Dibutyl phthalate, dms., c.l. divd., E lb. .35¾- —
l.c.l., same basis lb. .36¾- —
tanks, same basis lb. .34 - .34½
Sebacate, CP, dms., c.l., works. lb. .92 - —
l.c.l., works lb. .93 - —
tanks, works lb. .90¼- —
tech., dms., c.l., works lb. .90 - —
l.c.l. works lb. .91 - —
tanks, works lb. .88¼- —
Tartarate, dms., works, frt. alld. lb. .71 - —
Dibutylamine, dms., c.l., frt. alld. E. of Rockies lb. .54¼- —
l.c.l., same basis lb. .55¼- —
tanks, same basis lb. .53 - —

Dicaprylphthalate, dms., c.l., divd. lb. .36¾- .38¾
l.c.l. divd lb. .37 .39¾
tanks, divd lb. .35 .37
Sebacate, dms., c.l., works lb. .78½- —
l.c.l. works lb. .79½ —
tanks, works lb. .76¾- —
Dichloroaniline, dms., works lb. 75 83
Dichlorodiphenyltrichloroethane (see DDT).
Dichloroethyl ether (see Ether, dichloroethyl).
Dichloropentanes, dms., c.l., works lb. .05 —
l.c.l., works lb. .05¾- —
tanks, works lb. .04¼- —
Dicyclohexylamine, dms., c.l., works. lb. 46 —
l.c.l. works lb. 46¾ —
tanks, works lb. 44½ —
Dicyclohexylphthalate, fib, dms., c.l., works lb. .60 —
l.c.l., same basis lb. .61 —
Dieldrin, dms., frt. allo lb. 2.60 - —
l.c.l., frt. allo lb. 3.04 - —
Diethanolamine, dms., c.l., divd, E. lb. .29¼- —
l.c.l. same basis lb. .30¼- —
tanks, same basis lb. .27½ —
Diethyl carbonate, dms., c.l., frt. allo lb. 46¾ —
l.c.l. same basis lb. 47¾ —
tanks, same basis lb. .45 —
Maleate, dms., c.l., divd lb. .50 —
l.c.l. divd lb. .48¼- —
tanks, divd lb. .48½ —
Oxalate, dms., c.l., frt. allo lb. .41¾- —
l.c.l. same basis lb. .42¾- —
tanks, same basis lb. .40 - —
Phthalate, dms., c.l., divd lb. .31¼- —
l.c.l. divd lb. .32¼- —
tanks, divd lb. .29½- —

Diethyl sulphate, dms., c.l., works lb. .18¾- —
l.c.l. works lb. .19¼ —
tanks, works lb. .17 —
Diethylamine, dms., c.l., divd, E lb. .54¼- —
l.c.l., same basis lb. .55¼- —
tanks, same basis lb. .52½- —
Diethylanilin, dms lb. 48 —
Diethyleneglycol, dms, c.l. divd, E. lb. .20¼- —
l.c.l. same basis lb. .21¼ —
tanks, same basis lb. .18½ —
Boriborate, dms, c.l. lb. .30½ —
Diethylether, dms, c.l., works lb. .46½ —
l.c.l. works lb. 47 —
Monobutylether, dms., c.l., works. lb. .28¾- —
l.c.l. works lb. .29¼ —
tanks, works lb. 27 —
Monobutylether acetate, dms., c.l., works lb. .30 —
l.c.l., works lb. .30½ —
Monoethylether, dms., c.l., divd. lb. .20¾- —
l.c.l., divd lb. .21½- —
tanks, divd lb. .19½- —
Monoethylether acetate, dms., c.l., works lb. .26¾ —
l.c.l., works lb. .27¼ —
Monomethylether, dms., c.l., works. lb. .24½- —
l.c.l. works lb. .25¼ —
tanks works lb. .23½ —
Diethylenetriamine, dms., c.l., divd E. lb. .43 - —
l.c.l., same basis lb. .44 - —
tanks, same basis lb. .41½- —
Diethylethanolamine, dms., c.l., divd lb. .67½- —
l.c.l., same basis lb. .68½ —
tanks, same basis lb. .65¾ —



Thanks for lighting our Christmas tree!

THIS year, Southwest Potash Corporation celebrates its first Christmas as a supplier of HIGH-K Brand* Muriate of Potash.

To our many friends in agriculture and industry, we send:

★ thanks for your coöperation and understanding during a year when our Carlsbad, New Mexico, mine first began flexing its muscles and

★ our appreciation for making this—our first year a success.

To each of our friends—and to those we meet in the coming year—Southwest Potash Corporation wishes a Merry Christmas and a prosperous, rewarding 1953.

Southwest Potash Corporation

HIGH-K Potash

*Trade Mark

61 BROADWAY ★ NEW YORK 6, N. Y.

Diethylstilbestrol—Dyes, Coaltar, General Use, No. 978

Diethylstilbestrol, USP, bots., 10-kilo lots	kilo.	115.00	-150.00
1 kilo lot	kilo.	135.00	-150.00
Digitalis leaves, USP, dom., dms.	lb.	1.10	- 1.15
Digitoxin, USP, bots	gram.	6.50	- 8.00
Digiycol laurate, dms	lb.	.30½-	.34
Oleate, dms	lb.	.28½-	.29½
Stearate, dms	lb.	.25 -	.26½
Dihexyl subacate, dms., c.l., works	lb.	.76½-	—
l.c.l., works	lb.	.77½-	—
tanks, works	lb.	.74¾-	—
Dihydrazine sulphate, dms., works	lb.	1.10	- 1.25
Dihydrostreptomycin, either hydrochloride or sulphate, bulk	gram.	.21	- —
Dihydroxydichlorodiphenylmethane, pure, dms	lb.	2.80	- 3.00
tech., dms	lb.	1.15	- 1.25
Di-isobutyl ketone, dms., c.l., dlvd.	lb.	.15¼-	—
l.c.l., dlvd	lb.	.16¼-	—
tanks, dlvd	lb.	.13½-	—
Phthalate, dms., c.l., dlvd. E	lb.	.34¾-	—
l.c.l. dlvd. E	lb.	.35¾-	—
tanks, dlvd., E	lb.	.33 -	—
Di-isobutylene, dms., c.l., works	lb.	.09½-	—
l.c.l., works	lb.	.10 -	—
tanks, works	lb.	.07¼-	—
Di-iso-octyl phthalate, dms., c.l., dlvd	lb.	.38¾-	—
l.c.l., same basis	lb.	.39¾-	—
tanks, same basis	lb.	.37 -	—
Di-isopropylamine, dms., c.l., dlvd. E. of Rockies	lb.	.49¾-	—
l.c.l., same basis	lb.	.50¾-	—
tanks, same basis	lb.	.49 -	—
Dillseed, dewhiskered, bgs., afloat,	lb.	.13½-	—
natural, bgs	lb.	.11 -	.11½
Dimethyl anthranilate, cns	lb.	5.50	- 5.90
Chloroacetal, dms., c.l., works	lb.	.53	- —
l.c.l., works	lb.	.55	- —
tanks, works	lb.	.51	- —
Hydroquinone, dms.	lb.	2.25	- 2.75
Phthalate, dms., c.l., dlvd	lb.	.29½-	—
l.c.l., dlvd	lb.	.30¼-	—
tanks, dlvd	lb.	.27½-	—
Sebacate, dms., c.l., works	lb.	1.31¾-	—
l.c.l., works	lb.	1.32¾-	—
tanks, works	lb.	1.30 -	—
Sulphate, 55-gal. ret. dms., c.l., works	lb.	.15 -	—
l.c.l., works	lb.	.16 -	—
10-gal. ret dms., works	lb.	.16½-	—
Dimethylamine, 25-40%, dms., c.l., works, basis 100%	lb.	.37 -	.38
l.c.l., works, basis 100%	lb.	.37½-	.38½
tanks, works, basis, 100%	lb.	.33 -	—
Dimethylaniiin, dms., c.l., frt. alld.	lb.	.26	- —
l.c.l., frt. alld	lb.	.27	- —
tanks, frt. alld	lb.	.25	- —
Dimethylethanolamine, anhydrous, dms., c.l., dlvd	lb.	1.43	- —
l.c.l., dlvd	lb.	1.45	- —
tanks, dlvd.	lb.	1.40	- —
70%, dms., c.l., dlvd., basis 100%	lb.	.54	- —
l.c.l., dlvd.	lb.	.55	- —
tanks, dlvd.	lb.	.52¼-	—
Dimethylformamide, dms., works	lb.	.37	- —
tanks, works	lb.	.34	- —
Dinitroaniiin dms., frt. equald	lb.	.57	- —
Dinitrobenzene, crude, dms	lb.	.20	- —
purified, dms	lb.	.33	- —
Dinitrochlorobenzene, dms., c.l., frt. alld. E	lb.	.15¼-	—
l.c.l., frt. alld. E	lb.	.15¾-	—
tanks, frt. alld. E	lb.	.15 -	—
Dinitrophenol, bbls	lb.	.34	- —
Dinitrotoluene, oily, dms	lb.	.10	- —
refined, dms	lb.	.21	- —
Dioctyl adipate, dms., c.l., works	lb.	.44¾-	—
l.c.l., works	lb.	.45¾-	—
tanks, works	lb.	.43 -	—
Phthalate, dms., c.l., frt. alld	lb.	.38¾-	.41¾
l.c.l., frt. alld	lb.	.39¾-	.42¾
tanks, frt. alld	lb.	.37 -	.40
Diorthotolyiguanidin, dms., ton lots, divd	lb.	.54	- —
smaller lots, divd	lb.	.55	- —
Dioxane, dms., c.l., works	lb.	.28¾-	—
l.c.l., same basis	lb.	.29¼-	—
tanks, same basis	lb.	.27 -	—
Dip oil (see Tar acid oil).			
Dipentaerythritol, bgs., c.l., works	lb.	.34	- —
l.c.l., works	lb.	.37	- —
Dipentene, dest-dist., dms., extra, c.l., works	gal.	.49	- —
l.c.l., works	gal.	.50	- —
whse	gal.	.68	- —
steam-dist., dms., c.l., works, South	gal.	.60	- —
l.c.l., works, South	gal.	.69	- —
dlvd. N. Y.	lb.	.83	- —
Diphenyl, bbls, c.l., works	lb.	.15	- —
l.c.l., works	lb.	.16	- —
Diphenyl in bags ¼c. lower.			
Oxide, perfume grade, cns	lb.	.54	- .65
Phthalate, dms., c.l., works	lb.	.51¾-	—
l.c.l., same basis	lb.	.53¾-	—
Diphenylamine, refined, gran., bbls., c.l., works	lb.	.28	- —
l.c.l., works	lb.	.30	- —
tanks, works	lb.	.25	- —
tech, tanks, works	lb.	.24	- —
Diphenylguanidin, dms., ton lots	lb.	.44½-	—
smaller lots	lb.	.45½-	—
Diphenylhydantoin-sodium, USP, dms.	lb.	5.30	- 5.60
Dipropyleneglycol, dms., c.l., frt. alld	lb.	.16¾-	.17
l.c.l., same basis	lb.	.17¾-	.18
tanks, same basis	lb.	.15 -	—
Methylether, dms., c.l., dlvd. E	lb.	.20¾-	—
l.c.l., same basis	lb.	.21¾-	—
tanks, same basis	lb.	.19¼-	—
Di-secondary-amyiphenol, dms., c.l., works	lb.	.30¼-	—
l.c.l., works	lb.	.33¼-	—
tanks, works	lb.	.28¼-	—
Di-tertiary-amyiphenol, dms., c.l., works	lb.	.30¼-	—
l.c.l., works	lb.	.33¼-	—
tanks, works	lb.	.28¼-	—
Di-tertiary-butylmetacresol, dms., c.l., works	lb.	.31	- —
l.c.l., works	lb.	.32	- —
tanks, works	lb.	.30	- —
Di-tertiary butylparacresol, dms., c.l., works	lb.	.91	- —
l.c.l., works	lb.	.95	- —
Divi-divi, 45% tannin bgs., bls., c.l., U.S. ports, exdock	ton.	70.00	-72.00
Divinylbenzene 20-25%, dms., c.l., works	lb.	.20	- —
l.c.l., works	lb.	.21	- —
tanks, works	lb.	.19	- —
40-50%, basis 100%, dms., c.l., works	lb.	1.00	- —
l.c.l., works	lb.	1.15	- —
Dodecylbenzene, d m s., c.l., frt. equald	lb.	.14½-	—
l.c.l., same basis	lb.	.15½-	—
tanks, same basis	lb.	.12½-	—
Doggrass root, dom., cut, bls	lb.	.26	- .28
imp., cut, bls	lb.	.28	- .35
Dogwood bark, Jamaica, bls	lb.	.11	-.13
Dragon's blood, mass, cs	lb.	1.25	- 1.30
reeds, cs	lb.	1.40	- 1.45
Dyes, coaltar, certified colors for food drugs and cosmetics, 5-lb. and 1-lb. lots dlvd.—			
Blue, FD&C., No. 1, cns	lb.	17.00	-17.60
No. 2, cns	lb.	17.00	-17.60
Green, FD&C., No. 1, cns	lb.	17.00	-17.60
No. 2, cns	lb.	22.20	-22.85
No. 3, cns	lb.	35.25	-35.90
Orange, FD&C, No. 1, cns	lb.	3.65	- 3.75
No. 2, cns	lb.	4.65	- 4.75
Red, FD&C., No. 2, cns	lb.	7.55	- 7.85
No. 2, cns	lb.	4.00	- 4.10
No. 3, cns	lb.	22.20	-22.85
No. 4, cns	lb.	7.20	- 7.50
No. 32, cns	lb.	5.30	- 5.40
Violet, FD&C, No. 1, cns	lb.	17.00	-17.60
Yellow, FD&C, No. 1, cns	lb.	10.50	-11.05
No. 2, cns	lb.	3.30	- 3.40
No. 4, cns	lb.	3.30	- 3.40
No. 5, cns	lb.	4.00	- 4.10
No. 6, cns	lb	4.00	- 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 1-lb. lots, works, 25-50 lb lots, dlvd.:—			
Black, D&C., No. 1, cns	lb.	10.95	- —
Blue, D&C, No. 4, cns	lb.	13.55	- —
Brown, D&C, No. 1, cns	lb.	16.10	- —
Green, D&C, No. 5, cns	lb.	16.10	- —
No. 6, cns	lb.	16.10	- —
No. 7, cns	lb.	14.80	- —
Orange, D&C, No. 3, cns	lb.	10.95	- —
No. 4, cns	lb.	20.05	- —
No. 5, cns	lb.	5.70	- —
No. 10, cns	lb.	20.70	- —
Red, D & C, No. 8, cns	lb.	3.75	- —
No. 9, cns	lb.	3.75	- —
No. 10, cns	lb.	3.00	- —
No. 11, cns	lb.	2.25	- —
No. 12, cns	lb.	3.00	- —
No. 17, cns	lb.	10.20	- —
No. 18, cns	lb	24.00	- —
No. 19, cns	Lo.	20.05	- —
No. 21, cns	lb.	4.70	- —
No. 22, cns	lb.	10.95	- —
No. 28, cns	lb.	24.65	- —
No. 33, cns	lb.	17.45	- —
Violet, D&C, No. 2, cns	lb.	16.10	- —
Yellow, D&C, No. 7, cns	lb.	10.95	- —
No. 8, cns	lb.	10.95	- —
No. 10, cns	lb.	13.50	- —
No. 11, cns	lb.	13.50	- —
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 1-lb. lots, works, 25-50 lb. lots, divd:—			
Blue, Ext., D&C, No. 1, cns	lb.	16.10	- —
Green, Ext., D&C, No. 1, cns	lb.	16.10	- —
red, Ext., D&C, No. 1, cns	lb.	13.50	- —
Yellow, Ext. D&C, No. 1, cns	lb.	10.95	- —
20 Orange AD	lb.	.64	- —
27 Fast light orange 2G	lb.	.78	- —
Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype).			
31 Phloxine 2G	lb.	.64	- —
36 Alizarine yellow 2G	lb.	.83	- —
40 Orange B extra, conc	lb.	1.06	- —
57 Fuchsine 6B	lb.	.57	- —
79 Scarlet 2R	lb.	.74	- —
151 Orange Y	lb.	.47	- —
161 Orange RR	lb.	.55	- —
176 Fast red A, conc	lb.	.90	- —
179 Azo rubine XX, conc	lb.	1.04	- —
180 Blue F4B	lb.	.92	- —
185 Brilliant scarlet 3RN, conc	lb.	.93	- —
202 Chrome blue black, conc	lb.	.68	- —
203 Chrome black T	lb.	.71	- —
208 Fast blue SR	lb.	.91	- —
216 Chrome red B	lb.	.54	- —
234 Resorcin brown	lb.	.89	- —
246 Blue black, extra, conc	lb.	.86	- —
275 Milling red 3R, conc	lb.	2.03	- —
289 Navy blue 3R, conc., 125%	lb.	1.09	- —
299 Black F, conc	lb.	1.40	- —
304 Neutral black 2B, conc., 200%	lb.	2.01	- —
326 Fast scarlet 4BNC	lb.	1.64	- —
332 Bismarck brown RX, conc.	lb.	.86	- —
365 Brilliant yellow, conc	lb.	2.34	- —
382 Scarlet B	lb.	1.65	- —
401 Diazo black, BHD	lb.	.63	- —
406 Blue 2B, extra, conc	lb.	1.07	- —
419 Diamine fast red FC	lb.	1.12	- —
420 Diamine brown M	lb.	.90	- —
448 Benzo purpurine 4B, conc	lb.	1.18	- —
518 Diamine sky blue FF, extra, conc., 150%	lb.	2.25	- —
561 Trisulphon brown BCW, conc	lb.	2.03	- —
581 Direct black E, double	lb.	.89	- —
593 Diamine green BXN, conc. 150%	lb.	.97	- —
598 Congo brown GG, conc. 150%	lb.	1.46	- —
620 Stilbene yellow G, conc	lb.	.92	- —
639 Xylene light yellow GX	lb.	1.79	- —
640 Tartrazine, conc	lb.	1.46	- —
655 Auramine, conc	lb.	1.85	- —
667 Victoria green sml. cryst.	lb.	2.10	- —
668 Brilliant green cryst	lb.	2.79	- —
667 Brilliant milling green B, conc	lb.	2.68	- —
671 Brilliant Blue R	lb.	1.73	- —
680 Methyl violet 5, conc	lb.	1.10	- —
681 Crystal violet powder	lb.	2.15	- —
698 Formyl violet S4B	lb.	1.50	- —
720 Chrome azure blue SR, conc. 200%	lb.	2.75	- —
729 Victoria blue B, conc	lb.	2.79	- —
730 Green SN, extra	lb.	2.41	- —
749 Rhodamine B, extra	lb.	4.33	- —
814 Fast yellow NNL, conc. 175%	lb.	3.11	- —
841 Safranine T, extra, conc., 150%	lb.	2.99	- —
865 Nigrosine WSJ	lb.	.62	- —
922 Methylene blue ZX	lb.	1.55	- —
969 Sulphanthrene blue GR paste,	lb.	.78	- —
979 Sulphogene carbon HCF grains	lb.	.33	- —

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To fit both tableting and suspension needs Mallinckrodt magnesium trisilicate is supplied in the following forms:

Magnesium Trisilicate U.S.P. Powder
Magnesium Trisilicate U.S.P. Bulky
Magnesium Trisilicate U.S.P. Super Bulky

Important Properties

Important Properties—Typical Values

	Powder	Bulky	Super Bulky
Bulk—Approx. fl. oz./lb. . . .	45	75	130
Approx. Particle Size Distribution*			
less than 5 microns	15%	50%	65%
5-10 microns	10%	30%	15%
10-20 microns	35%	10%	15%
20-40 microns	40%	10%	5%
*Determined by sedimentation methods.			
Adsorptive power— mg. methylene blue/gram . . .	not less than 100	not less than 200	about 150
Acid consuming capacity— cc. N/10 HCl/gram	140-160	140-160	140-160

Companion Products

For alkaline mixtures containing magnesium trisilicate, Mallinckrodt also supplies top-quality companion products such as Magnesium Carbonate U.S.P., Calcium Carbonate U.S.P. and Bismuth Subcarbonate U.S.P.

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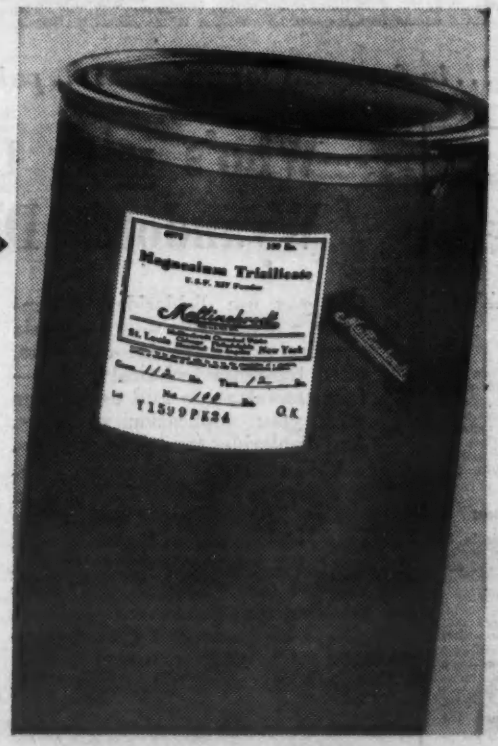

Dyes, Coaltar, General Use, No. 1034—Feldspar

Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype)

1034	Alizarin red S conc	lb	2.50	—
1054	Anthraquinone blue B	lb	2.91	—
1096	Indanthrene golden orange G, single paste	lb	2.00	—
	double paste	lb	4.00	—
1099	Indanthrene dark blue BO, single paste	lb	1.75	—
1101	Brilliant green B, double paste	lb	2.36	—
1106	Indanthrene blue RS, double paste	lb	2.57	—
1113	Indanthrene blue GCD, double paste	lb	1.75	—
1150	Indanthrene olive R, single paste	lb	1.10	—
1151	Indanthrene brown R, single paste	lb	1.68	—
	double paste	lb	3.35	—
1212	Sulphanthrene red violet 2RN, single paste	lb	1.62	—
1217	Sulphanthrene orange R, single paste	lb	1.65	—
p-4	Acid anthracene brown PGN	lb	2.31	—
p-14	Anthracene chromate brown EBN	lb	1.31	—
p-24	Benzo fast black L, conc., 150%	lb	2.18	—
p-80	Diazo brilliant scarlet ROA	lb	2.79	—
p-202	Zambesi black V	lb	1.06	—
p-313	Naphthol AS SW	lb	2.42	—
p-244	Cellilon scarlet B	lb	1.31	—
1078	Anthraquinone green G	lb	2.72	—
1065	Alizarin blue black B	lb	2.33	—

Dyes, coaltar, for stains, oil-soluble, 100-lb. dms., sellers' works.

Black blue No. 550	lb.	.81	—
Jet, No. 551	lb.	.89	—
Brown R, conc.	lb.	1.72	—
Orange R, brilliant	lb.	.90	—
Red 4 B, conc.	lb.	1.37	—
Yellow C	lb.	1.16	—
FN, conc.	lb.	1.22	—

Dyes, coaltar, for stains, spirit-soluble, 100-lb. dms, sellers' works:—

Auramine, O	lb	1.85	—
Black, basic blue	lb	1.21	—
Jet	lb	1.21	—
Blue, methylene, 2 B, conc.	lb	1.55	—
Brown, Bismarck, R, conc	lb	.86	—
Chrysodine, R, extra	lb	.60	—
Y extra	lb	.64	—
Fuchsine conc	lb	3.08	—
Green, malachite, conc	lb	2.10	—
Rhodamine B	lb	4.32	—
Safranine, Y, conc	lb	2.90	—
Violet, methyl B	lb	1.10	—

Dyes, coaltar, for stains, water-soluble, 100-lb dms, sellers' works:

Azo rubine R extra conc	lb	1.04	—
Black, acid blue B, extra	lb	.86	—
Orange Acid, Y, conc	lb	.47	—
Scarlet croceine, MOO	lb	1.45	—
Yellow azo- conc	lb	.90	—
Fast light 2 G, extra	lb	2.04	—
Methanil, conc	lb	.91	—

Oil-soluble, spirit-soluble, water-soluble dyes in kegs, 3c. higher; tins, 10c. higher.

E

Echinacea root, bls	lb.	.90	Nom.
Egg albumen (see Albumen).			
Yolk, dried, dom., bbls	lb.	1.00	- 1.02
Chinese, spot, bbls., duty paid	lb.	No stocks.	
tanners, bbls	lb.	.06	- .06½
Elder flowers, bright, bls	lb.	.30	- .40
Elecampane root, bls	lb.	.23	- .25
Elm bark, grinding, bls	lb.	.28	- .29
powd., bbls., bxs	lb.	.46	- .47
select, bundles	lb.	.60	- .61
Emetine hydrochloride, USP, bots.,	oz.	35.00	-42.85
Ephedrine synthetic, USP, anhydrous bots., 100-oz. lots	oz.	.98	- 1.00
hydrous, bots., 100-oz. lots	oz.	.92	- —
Hydrochloride, tin, 100-oz. lots	oz.	.75	- —
Sulphate cryst., tins, 100-oz. lots	oz.	.72	- —
powd., tins, 100-oz. lots	oz.	.73	- —
Epichlorohydrin, dms., c.l., works	lb.	.38¾	- —
l.c.l., works	lb.	.39½	- —
tanks, works	lb.	.37	- —
Epinephrine, synth., USP, bots., 100 grams	gram.	.45	- .55
Epsom salt, tech., bgs., c.l., works, 100 lbs.	100 lbs.	2.15	- —
l.c.l., works	100 lbs.	2.20	- 5.15
USP, cryst., bgs., c.l., works, 100 lbs.	100 lbs.	2.35	- —
l.c.l., 5,000 lbs., 1 withdrawal	100 lbs.	3.10	- —
smaller lots	100 lbs.	3.35	- —
Ergosterol, unirradiated, cryst	kilo	150 00	- —
Ergot, NF, dms., tin-lined	lb.	3.50	- 4.00
Eserine bots	oz.	45.00	-50.00
Salicylate USP bots	oz.	32.50	-34.00
Sulphate, bots	oz.	34.50	-35.50
Ether acetate (see Ethyl acetate).			
Butyl, dms., c.l., works	lb.	.31½	- —
l.c.l., works	lb.	.32	- —
tanks, works	lb.	.30	- —
Butyric (see Ethyl butyrate).			
Dichloroethyl, recd., dms., c.l., frt. alld. E	lb.	.14	- .14½
l.c.l., same basis	lb.	.15	- .16
tanks, same basis	lb.	.13	- —
technical, dms., c.l., works	lb.	.13	- —
l.c.l., works	lb.	.13½	- —
tanks, works	lb.	.12	- —
Ethyl, absolute, ACS, dms	lb.	.37	- —
anesthesia, USP, hospitals, 1-lb. cns	lb.	.89	- —
½-lb cns	lb.	.97	- —
¼-lb cns	lb.	1.05	- —
solvent, USP, dms., c.l., divd.	lb.	.15¾	—
l.c.l., same basis	lb.	.16¾	—
tanks, same basis	lb.	.13¾	—
synthetic, dms., c.l., divd. E	lb.	.1575	—
l.c.l., same basis	lb.	.1675	—
tanks, same basis	lb.	.1375	—
Isopropyl, dms., c.l., divd	lb.	.0375	- .0856
l.c.l., divd.	lb.	.0750	- .0936
tanks, divd	lb.	.05	- .07¼
Nitrous, conc., bots., 100-lb. lots	lb.	1.28	- 1.35
Vinyl, USP, anesthesia, bots., 50 cc. hospitals	not.	1.12	- —
75 cc. hospitals	not.	1.56	- —
Ethyl acetate, natural, fermentation 85-88%, dms., c.l., frt. alld.	lb.	.12¾	—
l.c.l., frt. alld	lb.	.13¾	—
tanks, frt. alld	lb.	.11	—
95-98%, dms., c.l., frt. alld.	lb.	.13	- —
l.c.l., frt. alld	lb.	.13¾	- —
tanks, frt. alld	lb.	.11¼	- —
99%, dms., c.l., frt. alld	lb.	.13¼	- —
l.c.l., frt. alld	lb.	.14	- —
tanks, frt. alld	lb.	.11½	- —
NF, dms., frt. alld	lb.	.24	- .25
synthetic, 85-90%, dms., c.l., frt. alld	lb.	.12¾	- —
l.c.l., frt alld	lb.	.13¾	- —
tanks, frt alld	lb.	.11	- —
95-98%, dms., c.l., frt. alld.	lb.	.13	- —
l.c.l. frt. alld	lb.	.13¾	- —
tanks, frt. alld	lb.	.11¼	- —
99%, dms., c.l., frt. alld	lb.	.13¼	- —
l.c.l. frt alld	lb.	.14	- —
tanks, frt alld	lb.	.11½	- —
Acetoacetate, dms., c.l., divd.	lb.	.55	- —
l.c.l., divd	lb.	.56½	- —
Acrylate dms, c.l., and truckload, works	lb.	.49	- —
less than truckload, works	lb.	.49½	- —
tanks, works	lb.	.48	- —
Aminobenzate, USP (see Benzocaine)			
Benzoate, cns, dms	lb.	.74	- .79
Bromide, tech, 98% dms	lb.	.43	- .47
Butyrate, works	lb.	.60	- 1.02
Carbamate (see Urethane).			
Chloride, tech, dms, c.l., works	lb.	.18	- .20
cyls, c.l., same basis	lb.	.20	- .22
tanks, same basis	lb.	.10	- —
USP, bbls, cyls	lb.	.22	- .24
Cinnamate, cns	lb.	2.28	- 2.53
Formate, dms	lb.	.60	—
Gallate, dms., 100 to 2,000-lb. lots	lb.	3.90	- 4.40
Iodide, bots., works	lb.	4.13	- —
Lactate, dms., works	lb.	.47½	- —
Methacrylate, dms., c.l., and truckload, works	lb.	.50	- —
less than truckload, works	lb.	.50½	- —
Nitrite (see Ether, nitrous).			
Oenanthate, dms	lb.	1.00	1.50
Oleate, dms, c.l., works	lb.	No prices.	
Oxalate (see Diethyl oxalate).			
Silicate, dist (see Tetraethyl orthosilicate).			
40% available SiO, dms., works	lb.	.60½	—
Ethylalphanaphthylamine (see Monoethylalphanaphthylamine)			
Ethylamine (see Mono-, Di- or Tri-)			
Ethylanilin (see Monoethylaniline)			
Ethylbenzene, 99%, dms., c.l.	lb.	.14	- .20¼
l.c.l.	lb.	.15	- .21¼
tanks	lb.	.13	- .18½
Ethylbutyl ketone, dms., c.l., works	lb.	.33½	- —
l.c.l., works	lb.	.34	- —
tanks	lb.	.32	- —
Ethylcellulose, vis. 7 cps., bgs., 5,000 lb. lots or more, works	lb.	.70	- —
smaller lots, works	lb.	.72	- .80
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, works	lb.	.65	- —
smaller lots	lb.	.67	- .75
Ethylene dichloride, dms., c.l., divd. E	lb.	.11¾	- —
l.c.l., same basis	lb.	.12¾	- —
tanks, same basis	lb.	.10	- —
Ethylene dichloride prices W. of Rockies 1c per lb. higher.			
Oxide, cyls., c.l., works	lb.	.26	- —
l.c.l. works	lb.	.27	- —
tanks, divd E	lb.	.19	- —
Trichloride (see Trichloroethane).			
Ethylenediamine, 76%, basis 100%, dms., c.l., divd	lb.	.49	- —
l.c.l., divd.	lb.	.50	- —
tanks, divd	lb.	.47	- —
Ethylenegiycol dms., c.l., frt. alld. E	lb.	.18¾	- —
l.c.l. same basis	lb.	.19¾	- —
tanks, same basis	lb.	.17	- —
Monobutylether, dms., c.l., divd.	lb.	.22½	- —
l.c.l., divd.	lb.	.23½	- —
tanks, divd.	lb.	.21	- —
Monoethylether, dms., c.l., divd.	lb.	.20	- —
l.c.l. divd.	lb.	.21	- —
tanks, divd.	lb.	.18½	- —
Monoethylether, acetate, dms., c.l., divd.	lb.	.18¼	- —
l.c.l., divd.	lb.	.19¼	- —
tanks, divd.	lb.	.16½	- —
Monomethylether, dms., c.l., works	lb.	.22	—
l.c.l. works	lb.	.22½	—
tanks, works	lb.	.21	—
Monomethylether acetate, dms., c.l., works	lb.	.23¾	—
l.c.l. works	lb.	.29¼	—
tanks, works	lb.	.27	—
Monostearate, dms	lb.	.30	- .37
Ethylethanolamines, mixed, dms., c.l. frt alld., E Miss	lb.	.42	—
l.c.l. same basis	lb	.43	—
tanks, same basis	lb	.40	—
Ethylmorphine hydrochloride, USP bots	oz.	11.85	—
Ethylorthotoluidine (see Monoethylorthotoluidin).			
Ethylvanillin, cns., 25-lb. lots	lb.	6.75	- 7.30
smaller lots	lb	7.35	- 7.40
Eucalyptol, USP, cns., dms	lb.	1.65	- 1.90
Eucalyptus leaves, bls	lb.	.10	- .11
Eugenol, pure, USP bots	lb	2.90	- 3.45
Euphorbia herb, bls	lb.	.12	- .14

F

Feldspar, enamel, 100 mesh, bgs., works	ton	20 00	- 22 00
Glass, 20 mesh bulk, tons works	ton	11 75	- 12 50
Pottery, bgs, ton lots, works	ton	20 00	- 22 00
bulk, c.l., works	ton	18 00	- 20 00

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Can *you* use dichlorides? Wyandotte, a dependable source of basic chemical raw materials for 62 years, offers top-notch technical service—free consultation and assistance with your application problems. And dichlorides are a good example.

Wyandotte's ETHYLENE DICHLORIDE is already widely used in the applications shown here, and in many others. It has found use as a solvent for animal, vegetable and mineral oils; resin solvent; textile spotting agent; textile scouring bath component; fumigant (in combination with carbon tetrachloride); metal-degreasing solvent; chemical intermediate; also in the manufacture of vinyl chloride and Thiokol products.

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Wyandotte CHEMICALS

Fennel seed, Czech, dark, bgs. lb. .20 - .21
French, bgs. lb. .23½- .24
Syrian, light, bgs. lb. .29 Nom.
Fenugreek seed, Moroccan, bgs. lb. .06 - —
Ferric-ammonium citrate (see iron ammonium citrate).
Ferric cacodylate (see iron cacodylate).
Ferric glycerophosphate (see iron-glycerophosphate).
Ferric hypophosphite (see iron hypophosphite).
Ferric sulphate (see iron sulphate-ferric).
Ferrous gluconate, NF, dms. lb. .88 - .97
Fir balsam, Canada, cns. gal. 34.00 -35.00
Oregon, bbls. gal. 2.85 Nom.
Fishberries, bgs. lb. 17 - .21
Fishliver oil (see Oil, fishliver).
Fishmeal ground, domestic, 60% protein, bulk, Baltc area ton. 135.60 - —
Fishscrap, dried 60% protein, bulk, Balto area ton. 129.60 - —
Fluorspar, dom., acid grade, bulk, c.l., mine ton. 60.00 - —
ceramic grade, 95-98% CaF_2, grd., bulk, mine, c.l. ton. 47.00 Nom.
85% CaF_2, grd., bulk, mine, ton. 41.50 Nom.
metallurgical grade, foundry, lump, 55-60% effective CaF_2, bulk, mine c.l., ton. 38.00 Nom.
washed gravel, 59-60% effective CaF_2, bulk, mine, c.l. ton. 38.00 Nom.
60-65% effective CaF_2, bulk, mine ton. 39.00 - —
65-70% effective CaF_2, bulk, mine c.l. ton. 40.00 Nom.
70% or better, effective CaF_2, bulk, mine, c.l. ton. 41.00 - —
imported, bulk, ex dock, New York ton. 37.00 Nom.
Formaldehyde, NF (inhibited), dms., c.l., E. works lb. .0625- —
l.c.l., E. works lb. .0675- —
tanks, E. works lb. .0420- —
methanol-free (uninhibited), tanks, works lb. .0395- —

Tankcar and tankwagon prices above are on a delivered basis in New England Eastern New York, N. J., Eastern Penna. and part of Delaware. In states other than Eastern Seaboard as well as W. of Rockies, prices f.o.b. Texas plants, are .0370 for inhibited and .0245 for uninhibited.

Fleaseed (see Psyllium seed).
Fringetree bark, bls. lb. .60 - .61
Fuller's earth, dom., powd., bgs., c.l., Fla., Ga., mines ton. 38.50 - —
Illinois mines ton. 37.20 - —
spent, bulk, Bayonne ton. 2.00 - 4.00
imported, bgs. c.l. ton. 30.00 -40.00
Furfural, tech., dms., c.l., works lb. .13 - —
l.c.l., works lb. .15 - —
tanks, works lb. .108 - —
Fusel oil, refined, dms., c.l., dlvd lb. .16¾- .17¼
l.c.l., dlvd lb. .17½- .18
tanks, dlvd lb. .15 - .15½
Fustic extract, cryst., No. 1, bbls., l.c.l lb. .47½- —
No. 2, bbls., l.c.l lb. .45½- —
No. 3, bbls., l.c.l lb. .43½- —
liquid, No. 1, bbls., l.c.l. lb. .22½ - —
No. 2, bbls., l.c.l. lb. .21½- —
No. 3, bbls., l.c.l. lb. .19 - —
solid, No. 1, bxs., l.c.l. lb. .45 - —

G

G salt, bbls., frt. alld lb. .73 - —
Galangal root, bls lb. .18 - .25
Gammapicoline, 95%, dms., c.l., works lb. 1.00 - 1.05
Gasoline, at refinery, ex tax, Arkansas, 80 octane tanks gal. .1075- —
N. Y. Harbor, 86 octane, tanks gal. .1285- .136
Group 3, 82 octane, tanks gal. .10375- .105
Gulf coast, 82 octane, tanks gal. .1125- .1130
Penn., western U. S. motor, 86 octane, tanks gal. .1275- .129
natural, group 3, 20-70 octane, tanks gal. .06875- —
Gelatin, silver label, imported, cs. lb. 1.25 - —
Gelatin, edible pure, (pork skin), 75 Bloom test, c.l. lb. .57 - —
150 Bloom test lb. .65 - .66
200 Bloom test lb. .71 - .72
225 Bloom test lb. .74 - .75
275 Bloom test lb. .82 - .85
Gelsemium root, bls lb. .26 - .27
Gentian root, bls lb. .17 - .18
grd., bbls., bxs lb. .22 - .23
powd., bbls., bxs lb. .23 - .24
Geraniol, extra, cns., dms. lb. 1.55 - 1.65
standard, cns., dms lb. .75 - 1.50
Geranyl acetate, cns lb. 1.55 - 1.80
Ginger, oleoresin, NF, from African roots, bxs lb. 4.00 - 7.75
from Jamaican root, bls. lb. 5.00 -12.75
Root, African, bls lb. .14½- .15
Cochin, unbleached, bgs. lb. .20 - —
Jamaica No. 1, bgs. lb. .24 - —
No. 2, bgs. lb. .17½- .18
No. 3, bgs. lb. .16 - —
Rhattoon, bgs lb. .16 - —
Nigerian, split, bgs. lb. .11½- .12
Ginseng root, cs. lb. 16.50 -17.00
Glauber's salt, anhyd (see Sodium sulphate).
cryst., bgs. c.l., works, frt. alld. ton. 45.00 - —
l.c.l., works ton. 50.00 - —
Glue, bone, extracted 66 jellygrams, bgs., c.l., dlvd lb. .24½- —
86 jellygrams, same basis lb. .25 - —
104 jellygrams, same basis lb. .25½- —
l.c.l jellygrams, same basis lb. .26 - —
104 jellygrams, same basis lb. .26¼- —
191 jellygrams, same basis lb. .27 - —
222 jellygrams, same basis lb. .28 - —
packers' 40 jellygrams, bgs., c.l., dlvd lb. .21½- —
65 jellygrams, same basis lb. .22½- —
86 jellygrams, same basis lb. .23 - —
115 jellygrams, same basis lb. .24 - —
135 jellygrams, same basis lb. .25 - —
164 jellygrams, same basis lb. .26 - —
185 jellygrams, same basis lb. .27 - —
renderers' 110 jellygrams, bgs., c.l., dlvd lb. .22 - —
150 jellygrams, same basis lb. .23 - —
190 jellygrams, same basis lb. .24 - —
Bone glue, l.c.l prices 1c higher.
Hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .26 - —
96-121, bgs., c.l., dlvd lb. .27½- .28
122-149, bgs., c.l., dlvd lb. .29 - .29¼
150-177, bgs., c.l., dlvd lb. .30 - .31
178-206, bgs., c.l., dlvd lb. .31 - .32
207-236, bgs., c.l., dlvd lb. .32 - .33
237-266, bgs., c.l., dlvd lb. .33 - .34
267-296, bgs., c.l., dlvd lb. .34 - .35
299-330, bgs., c.l., dlvd lb. .35 - .36
331-362, bgs., c.l., dlvd lb. .36 - .37
363-394, bgs., c.l., dlvd lb. .37 - .38
395-427, bgs., c.l., dlvd lb. .38 - .39
428-460, bgs., c.l., dlvd lb. .40 - .41
461-494, bgs., c.l., dlvd lb. .41 - .43
495-529, bgs., c.l., dlvd lb. .42 - .45
Hide glue l.c.l prices 1c higher than c.l.
Glycerin, crude, saponification, 82%, to refiners, tanks, dlvd lb. .30 Nom.
soaplye, 80%, tanks, dlvd lb. .27 Nom.
dynamite, dms., c.l., dlvd lb. .38¼- —
l.c.l., dlvd lb. .39¼- —
tanks, dlvd lb. .26¼ —
Glycerin, high gravity, dms., c.l., dlvd lb. .39 - —
l.c.l., dlvd lb. .39½- —
tanks, dlvd lb. .38½- —
refined SP, 98%, dms., c.l., dlvd. lb. .40¾- —
l.c.l., dlvd lb. .41¼- —
tanks, dlvd lb. .40¼- —
USP, CP, 95%, dms., c.l., dlvd. lb. .39½- —
l.c.l., dlvd lb. .40 - —
tanks, dlvd lb. .39 - —
yellow, distilled, dms., c.l., dlvd. lb. .38¾- —
l.c.l., dlvd lb. .39¾- —
tanks, dlvd lb. .38½- —
Glycine, USP (see Acid aminoacetic)
Glyoxal, 30% dms. c.l. works lb. .18½- —
l.c.l. works lb. .19 - —
tanks, works lb. .18 - —
Gold chloride acid-brown, bots oz. 23.50 -24.00
acid-yellow, bots. oz. 21.00 -21.50
Golden seal root, NF, tested, bls., lb. 3.00 - 3.05
powd., bxs lb. 3.25 - 3.30
Gold-sodium chloride, photo, bots oz. 13.00 -14.00
USP IX, bots oz. 14.50 -15.50
Grains of paradise, bgs lb. .34 - .34½
Graphite, amorph, powd., bgs., fib. dms, ex whse lb. .05 - .095
crystalline, 88-90%, powd., bgs., fib. dms., ex whse lb. .19 - .315
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .44½
95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
flake, No. 1, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 .31
Grease, brown, dlvd lb. .03½- —
house lb. .04½- —
white, choice lb. .06¼- —
yellow lb. .04¼- —
Green, brilliant, thioflavin, toner, molybdated, PMA, kgs., works lb. 4.50 - —
tungstated, PTMA, kgs., works lb. 6.30 - —
Chrome, CP, dark, light, medium, blue content 5 to 30%, bbls., dlvd, N. of Tenn. and N. C., E. of Miss., including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis lb. .37 - —
31-50%, bbls., same basis lb. .37 - .38
50-60%, bbls., same basis lb. .40 - —
reduced color, 25%, bbls., same basis lb. .17 - .17¼

Chrome green prices are ½c. higher dlvd. Ala., Fla., Ga., La. (Shreveport 1½c.), Miss., N. C., S. C., Tenn., Texas (Dallas, Ft. Worth 1¼c; El Paso, 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1c. higher dlvd. Pac. coast; for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.

Chromium oxide, hydrated, bbls., dms., c.l., frt. alld lb. .95 - 1.20
pure c.l., bgs., frt. alld lb. .37½- .44
Dyes (see Dyes, coaltar).
Emerald, malachite toner, tungstic, PTMA, bbls., works lb. 4.50 - 5.50
Paris (see Paris green).
Phthalocyanin toner, bbls., works. lb. 4.40 - —
resinated, bbls lb. 4.00 - —
water dispersable, bbls. lb. 1.71 - —
Pigment B, kegs lb. 1.35 - —
Grindelia robusta herb, bls. lb. .38 - .40
Guaiac resin, NF, cs. lb. .55 - .60
ordinary, cs. lb. .49 - .51
Guaiacol, cryst., tins lb. 1.90 - —
liquid, NF, bots., cbys. lb. 2.15 - 2.20
Carbonate, dms lb. 3.15 - 3.20
Guarana, powd., cs. lb. 2.00 - —
Gum accroides (see Gum yacca).
Aloe (see A.)
Ammoniac tears, cs lb. .35 - .65
Arabic, amber sorts, bgs. lb. .15½- .16
powdered, USP, bbls. lb. .19 - .21
Asafetida (see A.)
Asphaltum (see A.)
Benzoin, Sumatra, cs. lb. .36 - .40
Camphor (see C.).
Cellulose, bgs., 23,000 lbs. or more, works, frt. alld lb. .60 - —
smaller lots same basis lb .62 - —
works lb. 6.50 - —
Copal, Congo, No. 1, bgs. lb. .21 - .23
No. 2, bgs lb. .19 - .20
No. 3, bgs lb. .17½- .18¼
Manila, loba B, bgs. lb. No prices.
C, bgs lb. .27 - .32
CBB, bgs lb. .22 - .23
CNE, bgs. lb. No prices.
DBB, bgs. lb. .14 - .18
DK, bgs. lb. .13 - .15
dust, bgs. lb. .11 - .12½
soft, MA, bgs lb. .13 - .16
WS bgs lb. .27 - .35
Philippine, pale, chips, bgs. lb. .18 - .25
nubs, bgs lb. .27 - .32
seeds, bgs lb. .15 - .21
sorts, bgs lb. .18 - .22
Pontianak, chips, bgs lb. .22 - .26
nubs, bgs lb. .36 - .40
Dammar, Batavia, A/E bgs lb. .24 - .26
dust, bgs lb. .14 - .16
E., bgs lb. .16 - .18
East India, batu, bold, bgs lb. .12 - .14
nubs and chips, bgs lb. .08 - .10

U. S. P. Glycerine—in Mennen Lather Shave—has contributed to billions of smooth, close, satisfying shaves over the years. Indeed, for some 30 years this natural plasticizer and humectant has helped to keep Mennen cream uniform and smooth.

FULLY ACCEPTED... FULLY AVAILABLE IN ALL GRADES!

Improved stability of Glycerine supply means you can count on dependable delivery of this time-tested ingredient. You can confidently build your formulations around Glycerine—without concern for emergency substitutions.

The field of men's toiletries brings virtually all of Glycerine's properties into play. In after-shave lotions... brushless creams... hair tonics and the like, Glycerine may serve as a vehicle, solvent, penetrant or anti-freeze!

Toothpastes employ as much as 25 per cent of Glycerine in their composition... since it protects this type of product against possible change from a smooth-flowing paste into a "hard-to-squeeze" mass.

Wherever you use Glycerine – as a solvent... softener... emollient... humectant... preservative... lubricant... it provides an unmatched balance of properties, ready acceptance, and established freedom from toxicity.

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GLYCERINE PRODUCERS' ASSOCIATION
295 Madison Avenue, New York 17, N. Y.

Gum, Dammar, East India, Black—Isopentane

Gum, dammar, East India, black, bold, bgs	lb.	.14½	.16
unscraped, bgs	lb.	.12	.13
nubs and chips, bgs	lb.	.11	.13
pale, chips, bgs	lb.	.13	.14
nubs, bgs	lb.	.19	.20
Singapore, No. 1, bgs	lb.	.35	.38
No. 2, bgs	lb.	.29	.32
No. 3, bgs	lb.	.16	.17
dust, bgs	lb.	.14	.16
seeds bgs	lb.	.16	.12
Ester, gum-rosin type, dms., c.l., divd. Ill., Ind., Ky., Mich., Mid Atl. States, N.E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va. W Va	lb.	.14	.14½
wood-rosin type, dms., c.l., divd., Ill., Ind., etc	lb.	.14	—
Euphorbium, cs	lb.	.55	.60
Galbanum, cs	lb.	.75	.80
Gamboge, pipe, cs	lb.	.90	1.00
powd., bbls	lb.	.90	1.20
Ghatti, No. 2, bgs	lb.	.35	.37
No. 3, bgs	lb.	.31	.33
Guaiac (see Guaiac resin).			
Karaya, NF, powd., No. 1, bbls	lb.	.30	.35
No. 2, bbls	lb.	.22	.25
No. 3, bbls	lb.	.19	.22
Kauri, bgs	lb.	.30	.50
Kino, cs	lb	1.15	2.40
Locust bean, powd., bgs	lb	.32	.35
Mastic, cs	lb	2.00	2.10
Myrrh, cs	lb.	.30	.35
Olibanum, siftings, cs	lb.	.16	.18
tears cs	lb.	.20	.20
Opium (see O).			
Red (see Gum yacca).			
Rosin (see R).			
Sandarac, cks	lb	3.50	4.00
Scammony, cs	lb.	1.50	1.55

Gums, sterculia (see Gum karaya).			
Taiba, bgs	lb.	.10	.11
Tragacanth, No. 1, cs	lb.	2.85	2.90
No. 2, cs	lb.	2.45	2.50
No. 3, cs	lb.	1.60	1.70
powdered, USP, bbls	lb.	1.25	1.35
Yacca, bgs	lb.	.09	—
Gypsum, anhydrous filler, paper bgs., c.l., Medicine Lodge, Kan	ton.	19.00	—
Plaster of paris, paper bgs., c.l., Baltimore, frt. equald	ton.	18.30	—
Harlem river, N. Y., frt. equald	ton.	17.30	—
Medicine Lodge, Kan., frt. equald	ton.	16.00	—
Stucco, paper bgs., Akron, N. Y., frt. equald	ton.	8.00	—
Blue Rapids, Kans., frt. equald	ton.	8.00	—
Fort Dodge, Iowa, frt equald.	ton.	8.00	—
Gypsum, Ohio, frt. equald.	ton.	8.00	—
Grand Rapids, Mich., frt. equald	ton.	8.00	—
New Brighton, N. Y., frt. equald	ton.	8.00	—
Plasterco, Ga., frt. equald.	ton.	8.00	—
Roton, Texas, frt. equald	ton.	8.00	—
Southard, Okla., frt. equald.	ton.	8.00	—
Sweetwater, Texas, frt. equald	ton.	8.00	—
Terra alba, dom., paper bgs., c.l., Baltimore	ton.	14.40	—
Harlem River, N. Y.	ton.	14.40	—
Imported, English, paper bgs., ex dock	ton.	48.00	—
ex warehouse	ton.	53.00	56.00

H

Hawthorn berries, bgs	lb.	.30	.32
Heliotropine, cryst., cns	lb.	3.10	3.45
Helonias root, bls	lb.	1.65	1.70
Hellebore root, dom., green, bls	lb.	.60	.65
imp., black, whole, bls	lb.	.25	.30
ground, bxs	lb.	.30	.35
powder, bxs	lb.	.32	.37
white, whole, bls	lb.	.25	.30
powder, bxs	lb.	.35	.45
Hematine extract, cryst., No. 1, bbls., l.c.l.	lb.	.47	—
No. 2, bbls., l.c.l.	lb.	.43	—
No. 3, bbls., l.c.l.	lb.	.41	—
No. 4, bbls., l.c.l.	lb.	.39	—
No 5, bbls., l.c.l.	lb.	.37	—
paste, No. 1, bbls., l.c.l.	lb.	.30½	—
Henbane leaves, bls	lb.	.35	.40
Henna leaves, bls	lb.	.23	.25
powd., bbls., bgs	lb.	.22	.30
Heptane, industrial, Bayonne, N. J., tanks	gal.	.13	—
group 3, tanks	gal.	.1375	.1405
Hesperidin methylchalcone, bots., works	lb.	30.00	—
Hexachlorophene, dms	lb.	2.60	—
Hexalin (see Cyclohexanol).			
Hexamethylenetetramine, tech. bgs., 1,000-lb. lots or more, Perth Amboy or N. Y. C.	lb.	.233	—
less than 1,000-lb. lots, same basis	lb.	.242	—
fb. dms., 1,000-lb. lots or more, same basis	lb.	.239	—
less than 1,000-lb. lots, same basis	lb.	.249	—
USP, dms., 500 lbs. or more, same basis	lb.	.40½	—
smaller lots, same basis	lb.	.41½	—
Hexamine (see Hexamethylene tetramine).			
Hexane, industrial, Bayonne, N. J., tanks, gal.		.13	—
Group 3, tanks	gal.	.143	.148
Hexanol, normal, dms., c.l., works	lb.	.34½	—
l.c.l., works	lb.	.35	—
tanks, works	lb.	.33	—
Hexyl cinnamic aldehyde, dms	lb.	2.25	7.50
Salicylate, dms	lb.	1.75	—
Hexyleneglycol, dms., c.l., divd	lb.	.15¾	—
l.c.l., divd	lb.	.16½	—
tanks, divd	lb.	.14	—
Hexylmethacrylate, normal, dms., less than truckload, works	lb.	.71	—
Hexylresorcinol, USP, dms., divd., 50-lb. lots or more	lb.	15.00	-16.00
smaller lots, divd	lb.	16.00	-17.00
Histamine diphosphate, USP., bots.	kilo.	45.00	—
Histidine hydrochloride, tsavo, NF., fib. dms., 50-kilo lots, works	kilo.	80.00	-85.00
1-5 kilo lots works	kilo.	90.00	-95.00
Homatropine hydrobromide, USP bots	oz.	13.75	-14.00
Hydrochloride, bots	oz.	20.00	-22.00
Methylbromide, USP, bots	oz.	13.00	-14.50
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton	ton.	7.00	—
Hops, NF bls	lb.	.29	.35
Horehound herb, bls	lb.	.14	.15
Hydrangea root, bls	lb.	.23	.25
Hydrastine, bots	oz.	29.50	-31.00
Hydrochloride, NF, bots	oz.	29.50	-31.00
Sulphate bots	oz.	35.00	-37.00
Hydrastinine, 10-grain bots	bot	1.95	—
Hydrastis (see Goldenseal).			
Hydrazine, free base, ret. dms., Niagara Falls	lb.	4.80	5.25
Hydrate, 100%, ret. dms., Niagara Falls	lb.	3.00	3.50
85%, same basis	lb.	2.55	3.00
Hydrofuramide, dms., fib. ctns., works	lb.	.30	.40
Hydrogen chloride anhyd., 50-lb. cyl., works	lb.	.55	.60
Peroxide, USP bbls. divd	lb.	.03¾	.05
35%, chys., same basis	lb.	.217	.243
dms., c.l., same basis	lb.	.21	—
l.c.l., same basis	lb.	.215	.24
tanks	lb.	.203	—
Hydrogen peroxide prices on W. Coast 2c per lb. higher.			
Hydroquinone, photogrd., bbls., dms.	lb.	.93	1.00
tech., dms., c.l., frt. equald	lb.	.77	—
l.c.l., frt. equald	lb.	.78	—
Hydroxycitronellal, cns	lb.	5.35	5.80
Hyoscine salts (see Scopolamine)			
Hyoscyamine, bots	oz.	15.75	-16.00
Hydrobromide, bots	oz.	16.50	-18.00
Sulphate bots	oz.	12.00	-13.50
Hypernic extract, cryst., No. 2, bbls., l.c.l.	lb.	.52	—
liquid, No 1, bbls., l.c.l.	lb.	.35	—
No. 2, bbls., l.c.l.	lb.	.27	—
Hyssop herb, bgs	lb.	.35	.36
Leaves, bgs	lb.	.50	.51

I

Iceland moss, bgs	lb.	.30	.35
Ichthammol, NF, dms	lb.	.60	.75
Indian red (see Red, Indian).			
Indigo, nat., chests	lb	2.14	2.16
synth., paste, 20%, bbls	lb.	.28	.28½
Indol, CP bots	lb	17.00	-21.00
Inositol dms, divd	lb	5.60	—
tins, divd	lb	5.70	—
Insect flowers (see Pyrethrum).			
Iodine, crude, kgs	lb.	1.84	2.04
resublimed, USP, bots., jars	lb.	2.55	3.78
Iodochlorohydroxyquin, USP, dms.	lb.	5.90	—
Iodoform, NF, dms., kgs	lb	4.70	4.85
Ionone alpha, cns	lb.	3.75	- 8.15
Beta, cns	lb.	4.30	-11.25
Methyl, dms., cns	lb.	3.60	- 5.40
Ipecac root, bgs	lb.	5.25	- 5.50
powd., bbls., bxs	lb.	6.00	- 6.25
Irish moss, bleached, prime, bls	lb.	.25	.30
Iron acetate liquor, 16°, bbls., c.l., works	lb.	.09	—
l.c.l., works	lb.	.09¾	—
solut., USP, IX, chys	lb.	.16	—
djns	lb.	.17	—
Cacodylate, NF, bots	lb.	13.00	-14.00
Chloride (ferric), anhydr., tech., dms., c.l., works	100 lbs.	6.25	—
l.c.l., works	100 lbs.	7.50	—
cryst., indust., bbls., c.l., works	100 lbs.	5.25	6.25
l.c.l., works	100 lbs.	5.75	6.75
USP, dms., works	lb.	.07½	.09
solut., 42° Be. basis 100%, chys., c.l., works	100 lbs.	7.25	8.25
l.c.l., works	100 lbs.	7.75	-10.75
tanks, works	100 lbs.	3.45	—
Citrate, gran., dms	lb.	.77	.80
Gluconate, NF (see Ferrous gluconate, NF).			
Glycerophosphate, NF, powd	lb.	4.45	4.55
Hypophosphite, NF, dms	lb	2.80	—
Iodide bgs	lb.	3.66	3.73
Naphthenate liq., 6% Fe., dms., frt. alld	lb.	.23¾	—
Oxalate, gran., dms	lb.	.85	.87
Phosphate, soluble, NF, gran., pearls, cs	lb.	.64	.68
Pyrophosphate, soluble, NF VII, gran., pearls, dms	lb.	.78	.81
Reduced, NF (see Iron, Reduced)	lb.	.90	.95
Resinate, 6.75% Fe, dms., frt. alld	lb.	.26¼	—
Stearate, dms., c.l	lb.	.37	—
ton lots	lb.	.38	—
less ton lots	lb.	.39	—
Sulphate, ferric, partially hydrated, bgs., c.l., works	ton.	30.00	—
l.c.l., works	ton.	31.00	—
ferrous, tech. (see Copperas).			
USP, cryst., bbls., dms	lb.	.09½	.10
Iron by hydrogen (see Iron, Reduced).			
Iron-ammonium citrate, brown, N.F., gran., dms	lb.	.55	.60
green, USP XII, gran., dms	lb.	.55	.59
Oxalate, fine gran., dms	lb.	.25½	.28½
Iron-potassium, oxalate, fine gran., dms	lb.	.30½	.33½
Iron-sodium, oxalate, fine gran., dms	lb.	.25½	.28½
Isoborneol, cns	lb.	1.25	1.70
Isobornyl acetate, cns	lb.	.60	.70
Formate, dms	lb.	.80	—
Propionate, dms	lb	1.15	1.50
Isobutyl acetate, perfume grade, cns.	lb.	.73	.97
solvent grade, dms., c.l., divd. E. of Rockies	lb.	.13	—
l.c.l., same basis	lb.	.13¾	—
tanks, same basis	lb.	.11¼	—
Methacryiate, dms., works	lb.	.60	—
Isobutyraldehyde, dms., divd	lb.	.50	—
Isoeugenol, cns	lb.	3.70	4.40
Isoniazid, bulk, powder, 25-kilo lots or more	kilo.	34.00	-35.00
smaller lots	kilo.	35.00	-36.00
Isonicotinic acid hydrazide (see Isoniazid).			
Isopentane, dms., works	lb.	.43	.55

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Sodium Bicarbonate
Sodium Aluminate
Urea
Ammonium Chloride
Ammonium Bicarbonate
Ammonium Carbonate
Bleaching Powder (Stabilized)
Trichlorethylene
Sodium Perborate
Chlorinated Paraffins

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Isophorone, dms., c.l., works....lb. .24½- —
l.c.l., works....lb. .24¾- —
tanks, works....lb. .22½- —
Isopropanol (see Alcohol, isopropyl).
Isopropyl acetate, dms., c.l., dlvd. lb. .11¾- —
l.c.l., same basis....lb. .12½- —
tanks, same basis....lb. .10 —
Alcohol (see Alcohol, isopropyl).
Benzene (see Cumene)
Ether (see Ether, isopropyl).
Isopropylamine (see Mono-, Di- or Tri-)
Isopropylphenol, dms., c.l., works lb. .46 - —
l.c.l., works....lb. .47 - —
tanks, works....lb. .45 - —
Isoquinoline, dms., works....lb. .65 - 1.25

J

Jaborandi leaves, bls....lb. .17 - .18
Jalap root, NF, bls....lb. .45 - .55
powd., bbls, bxs....lb. .50 - .60
Juniper berries, bgs....lb. .13 - .15
Tar, NF, dms....lb. .42 - .50

K

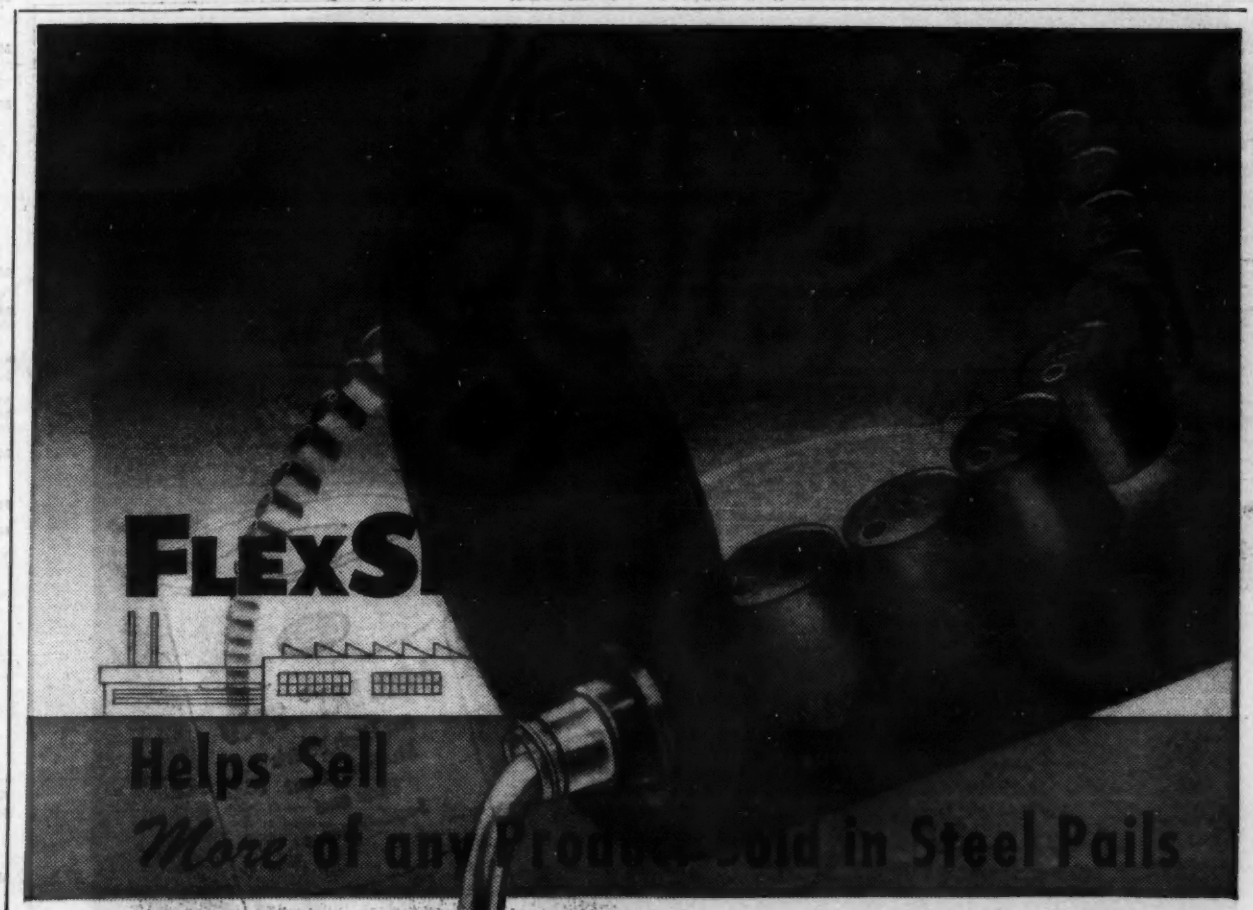
Kamala, powd., cns....lb. .75 - .80
Kava Kava root, bls....lb. .30 - .32
Kaolin (see also Clay, China).
NF, powd., fib dms....lb. .08 - .18½
colloidal fib dms....lb. .15 - .15½
Kerosene, at refinery, Ark., 42-44 specific gravity, w.w., tanks, gal. .0925- —
California, 40-43 s.g., w.w., tanks, gal. .120 - .130
Gulf ports, 41-43 s.g., w.w., tanks, gal. .0970- .1013
N. Y. Harbor, 43-44 s.g., w.w., tanks gal. .1075- —
Okla.-Tex., 41-43 s.g., w.w., tanks gal. .0875- .095
Penn, Western, 45 s.g., w.w., tanks gal. .1125- .1193
Kola nuts, bgs....lb. .08 - .09
Kyanite, imp., 60% alumina, low iron content, 10 mesh, bulk, wbse ton.95.00 -100.00
calcined, grain, 10-mesh, wbse. ton.95.00 -105.00

L

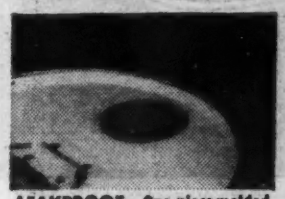
Lady's slipper root, bls....lb. 1.70 - 1.75
Lanolin, cosmetic dms., works lb. .35½- .40½
USP, anhydrous, dms., works lb. .33½- —
hydrous, dms., works....lb. .32 - —
Lard, cash, tres., Chicago....lb. .08 - .08½
Larkspur seed, bgs....lb. .20 - .25
Laurel berries, bgs....lb. .25 - .26
Leaves Greek bls....lb. .10 - .10½
Portuguese, bls....lb. .10 - .10½
Turkish, bls....lb. .11½- .12
Yugoslavian, bls....lb. .09 - .09½
Lauryl chloride, dms., works, frt. equald lb. .72 - —
Methacrylate, normal, dms., less than truckload, works lb. 1.00 - —
Lavender flowers, medium, bls lb. .55 - .60
ordinary, bls....lb. .16 - .20
select, bls....lb. .90 - —
Lead acetate, white crystals, bbls. lb. .22 - —
gran, bbls....lb. .23 - —
powd., bbls....lb. .23 - —
NF, cryst., gran., powd....lb. .31 - .32
Arsenate, dealers, acid powder, frt. alld. on 98 lbs. or 3-lb bgs. or larger, c.l., over lb. .27½- —
l.c.l., frt. alld....lb. .28½- —
1-lb bgs., c.l....lb. .42½- —
l.c.l....lb. .43½- —
Blue, basic sulphate, bbls., c.l., ship't point, frt. alld. lb. .14¾- —
l.c.l., works....lb. .15¾- —
Carbonate (see Lead, white).
Chloride, dms....lb. .45 - —
Iodide, NF, V, jars....lb. 3.82 - —
Linoleate, fused, 26.5%, dms lb. .32½- —
Metal, pigs, prime, N. Y....lb. .1400- —
St. Louis....lb. .1380- —
Metallic paste, dms., 20,000-40,000 lbs., works..lb. .34¼- —
10,000-20,000 lbs., same basis. lb. .34¾- —
2,000-10,000 lbs., same basis. lb. .35¼- —
200-2,000 lbs., same basis.lb. .35¾- —
Prices ex whse, Jersey City, N. J., 4½c. per lb. higher.
Monosilicate, bgs., c.l....lb. .1512- —
l.c.l....lb. .1610- —
Naphthenate, liquid, 16% Pb, dms., dlvd. lb. .17½- —
24% Pb, dms., dlvd....lb. .23¾- —
solid, 37% Pb, dms., dlvd....lb. .31 - —
Nitrate, bbls....lb. .22¼- —
Oleate, fused, bbls....lb. .29¾- —
Orthosilicate gel, 50% PbO, dms., works lb. .32¾- —
60% PbO dms, works lb. .31¾- —
Peroxide, powd., tech., bbls..lb. .45 - .47
Phthalate, dibasic, dms., works. lb. .41 - —
Red, 95% Pb_3O_4, or less, bbls., c.l. ship't point, frt. alld. lb. .16¾- —
l.c.l., same basis....lb. .17¾- —
97% Pb_3O_4, bbls., c.l., same basis..lb. .17 - —
l.c.l., same basis....lb. .18 - —
98% Pb_3O_4, bbls., c.l., same basis..lb. .17¼- —
l.c.l., same basis....lb. .18¼- —
Resinate, precip., dms., dlvd lb. .28½- —
Salicylate, normal, dms., works. lb. .48 - —
Stearate, dibasic, ton lots....lb. .54 - —
precip., bbls., c.l....lb. .59 - —
ton lots....lb. .60 - —
less ton lots....lb. .61 - —
Sulphate (see Lead blue; Lead white; basic sulphate)
Tallate, liquid, 16% Pb dms lb. .15¼- —
24% Pb dms....lb. .20¼- —
White, basic, carbonate, bgs., c.l., ship't point, frt. alld. lb. .1625- —
l.c.l., same basis....lb. .1725- —
basic silicate, bgs., c.l., ship't point, frt. alld. lb. .15 - .1325
l.c.l., same basis....lb. .16 - .1925
basic sulphate, bgs., c.l., ship't point, frt. alld. lb. .14¾- —
l.c.l., same basis....lb. .15¾- —
Lecithin, edible, tech., bleached dms., non-ret., c.l., works. lb. .15½- .18
l.c.l., same basis....lb. .16½- .19
unbleached c.l., same basis lb. .14½- .15
l.c.l., same basis....lb. .16 - .18
Lemon peel, bls....lb. .20 - .30
Leucine dextro-laevo, dms., works. lb. 12.25 -15.00
Licorice extract, mass, cns....lb. .21¼- .40
powd., bbls....lb. .21¾- .50
Root, bls....lb. .05½- .10
5-lb. bundles, cs....lb. .50 - .55
powd., bbls....lb. .13 - .13¼
Lignin extract, tanning grade, spn., c.l., works..lb. .03½- .04½

Lime, agricultural, bulk, works ton.14.50 - —
Chemical (quicklime) lump, pebble, bulk, Adams, Mass. ton.12.50 - —
Annville, Pa....ton.11.50 - —
Austin, Texas....ton. 9.50 - —
Bellefonte, Pa....ton.11.50 - —
Buffalo, N. Y....ton.14.00 - —
Cedar Hollow, Pa....ton.11.50 - —
Duluth, Minn....ton.12.50 - —
El Paso, Texas....ton.14.00 - —
Farnams, Mass....ton.14.00 - —
Gibsonburg, Ohio....ton.12.50 - —
Hannibal, Mo....ton.10.00 - —
Keystone, Ala....ton.10.25 - —
Kimballton, Va....ton.10.25 - —
Knoxville, Tenn....ton.10.50 - —
Lee, Mass....ton.12.50 - —
Lewisburg, Ohio....ton.10.00 - —
Limedale, Ark....ton.10.00 - —
Los Angeles, Cal....ton.25.10 -26.84
Marble Cliff, Ohio....ton.10.00 - —
Martinsburg, W. Va....ton.11.00 - —
Mosher, Mo....ton.10.25 - —
Nelson, Ariz....ton.14.50 -23.65
Quincy, Ill....ton.10.00 -13.00
Reddick, Fla....ton.13.50 - —
Scotrock, Ala....ton.10.25 - —
Springfield, Mo....ton.12.25 - —
Winooski, Vt....ton.15.50 - —
Woodville, Ohio....ton.11.50 - —
York, Pa....ton.15.50 - —
Hydrated, paper bags, Adams, Mass....ton.15.50 - —
Annville, Pa....ton.14.50 - —
Austin, Texas....ton.13.00 - —
Bellefonte, Pa....ton.14.50 - —
Buffalo, N. Y....ton.16.00 - —
Cedar Hollow, Pa....ton.14.50 - —
Chicago, Ill....ton.15.00 - —
Duluth, Minn....ton.14.00 - —
El Paso, Texas....ton.17.50 - —
Engle, W. Va....ton.14.50 - —
Farnams, Mass....ton.14.00 - —
Gibsonburg, Ohio....ton.16.50 - —
Hannibal, Mo....ton.12.00 - —
Lime, hydrated, paper bgs, Keystone, Ala..ton.13.50 - —
Kimballton, Va....ton.13.50 - —
Knoxville, Tenn....ton.13.00 - —
Lee, Mass....ton.15.50 - —
Lewisburg, Ohio....ton.14.00 - —
Limedale, Ark....ton.12.00 - —
Marble Cliff, Ohio....ton.13.50 - —
McNeil, Tex....ton.13.00 - —
Menominee, Mich....ton.14.00 - —
Mosher, Mo....ton.12.50 - —
North Tazewell, Va....ton.12.75 - —
Quincy, Ill....ton.10.00 -12.00
Reddick, Fla....ton.16.00 - —
Scotrock, Ala....ton.13.50 - —
Springfield, Mo....ton.12.25 - —
Winooski, Vt....ton.15.50 - —
Woodville, Ohio....ton.14.50 - —
York, Pa....ton.14.50 - —
Spray, paper bgs., Adams, Mass. ton.17.00 - —
Annville, Pa....ton.17.00 - —
Austin, Texas....ton.13.00 - —
Bellefonte, Pa....ton.17.50 - —
Carey, Ohio....ton.11.00 - —
Duluth, Minn....ton.15.00 - —
Engle, W. Va....ton.14.50 - —
Farnams, Mass....ton.14.00 - —
Gibsonburg, Ohio....ton.16.50 - —
Keystone, Ala....ton.13.50 - —
Kimballton, Va....ton.13.50 - —
Lee, Mass....ton.17.00 - —
Lewisburg, Ohio....ton.16.00 - —
Marble Cliff, Ohio....ton.16.00 - —
McNeil, Tex....ton.16.00 - —
Menominee, Mich....ton.14.00 - —
Mosher, Mo....ton.12.50 - —
North Tazewell, Va....ton.12.75 - —
Reddick, Fla....ton.16.00 - —
Rockland, Me....ton.10.00 - —

Lime, spray, paper bgs., Springfield, Mo....ton.12.25 - —
Scotrock, Ala....ton.13.50 - —
Winooski, Vt....ton.17.00 - —
Woodville, Ohio....ton.16.50 - —
York, Pa....ton.15.50 - —
Lime salts (see Calcium)
Lime ammonia nitrogen, 20.5% N (see Ammonium nitrate with dolomite)
Limestone grd. bgs. works ton 3.50 4.00
Linalool, ex bois de rose, dms..lb. 5.60 - 6.55
ex lignaloe wood, dms lb. 6.75 7.10
Linalyl acetate ex bois de rose, 90-92%, dms lb 6.30 6.55
96-98%, dms....lb. 6.40 - 7.10
ex petitgrain, bots....lb. 4.60 - 5.05
Lindane, 25% formulation cns., works lb 2.70 - —
dms., works lb 2.60 - —
99%, tech., dms., works....lb. 5.75 - 7.00
Linden flowers with leaves, bls lb. .34 - .35
without leaves, bls lb. .40 - .41
Linseed meal expeller, 36%, bulk, Midwest mills ton.82.00 Nom.
extracted, 36% same basis..ton.82.00 Nom.
Litharge, com'l, powd, bbls, c.l., ship't point, frt. alld lb. .15¾- —
l.c.l., same basis....lb. .16¾- —
Lithium benzoate dms lb. 1.65 1.67
Bromide, NF, bbls., works, frt. equald lb. 2.10 - 2.75
Carbonate, tech., dms....lb. .80 - 1.10
Chloride, cryst., dms lb. .95 1.25
Citrate, NF, bbls., dms., bgs lb 1.05 1.40
Fluoride, bbls lb 1.85 - 2.00
Hydride powd., dms., works .lb.12.00 -14.00
Hydroxide, monohydrate, dms lb. .91 - 1.05
Salicylate, dms lb. 1.60 - 1.70



BECAUSE CUSTOM[illegible]S PREFER THESE FLEXSPOU[illegible] FEATURES


LEAKPROOF—One-piece molded plastic, sealed directly on pail metal. Stronger than pail itself.

EAS[illegible] OPEN—Without special [illegible]Nail, screwdriver or any sharp [illegible]t does the job.

FLEXIBLE POURING SPOUT—Extends for easy pouring. No muss or fuss . . . because only inside of spout touches liquid.

RE-[illegible] TIGHTLY—With plastic [illegible] cap. Protects volatile liqu[illegible]out retracts for easy sta[illegible]

RIEKE METAL PRODUCTS [illegible]ORPORATION
AUBURN, IN[illegible]A

FLEXSPOUT simplifies using, pouring and storing your liquid products. It's a powerful sales tool for any liquid that's packaged in steel pails.

FLEXSPOUT is odorless, tasteless and non-toxic. It resists attack by almost all chemicals, solvents and oils. Easily applied with one stroke of a simple hand tool, it permits faster filling and sealing, lowers production costs. For a few cents a pail it adds dollars worth of sales appeal to your products.

Almost all pail manufacturers are equipped to furnish pails ready for use with the **FLEXSPOUT** closure. For more details, prices and a free sample, just fill out and mail the handy coupon.

MAIL THIS COUPON TODAY

RIEKE METAL PRODUCTS CORPORATION
AUBURN, INDIANA

We'd like to know more about the new FLEXSPOUT Closure.
Please send us... ☐ Free Sample ☐ Brochure.

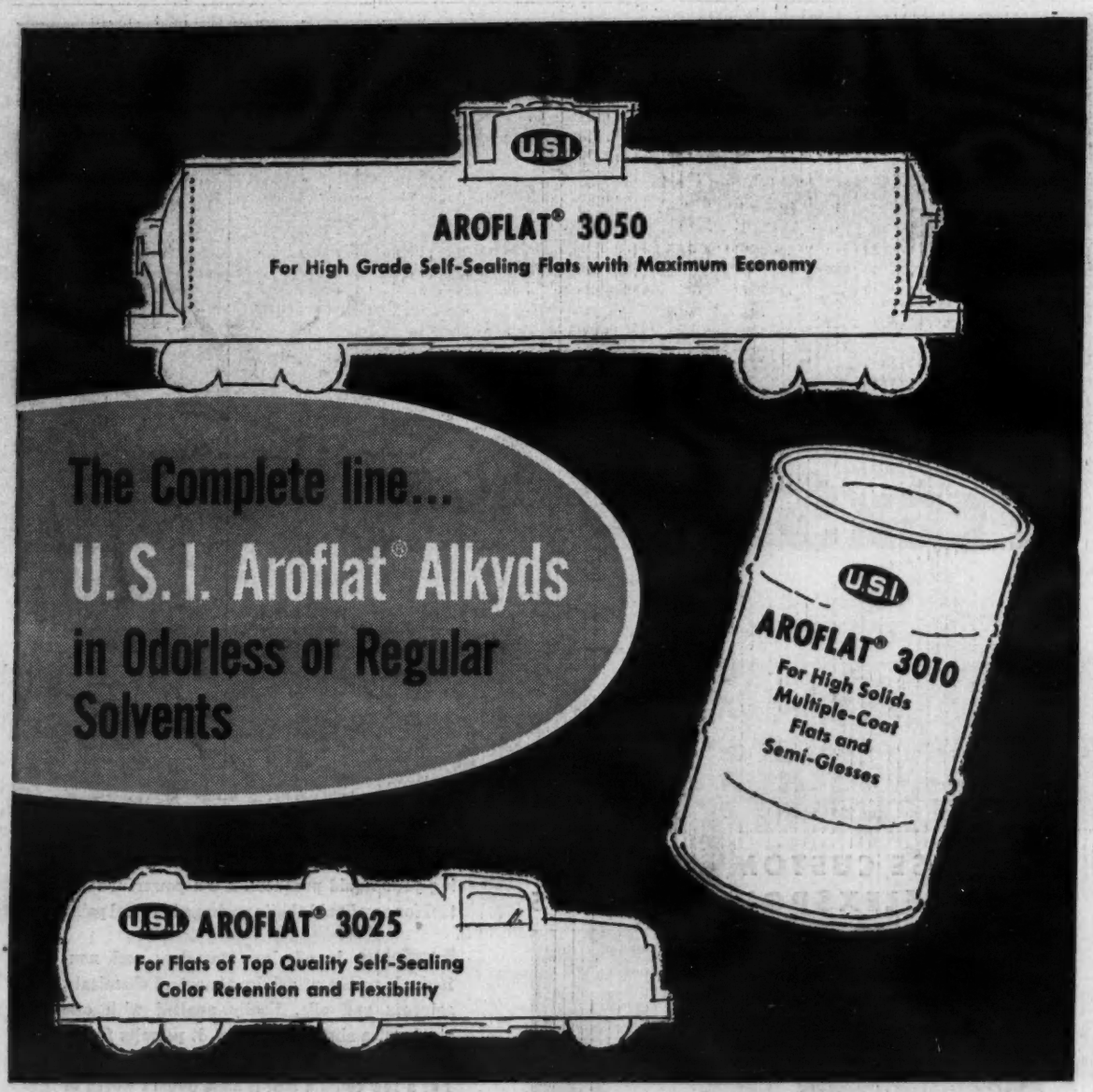
COMPANY_____
NAME_____ TITLE_____
STREET_____
CITY_____ STATE_____

Lithopone—Methyl Methacrylate

Lithopone, ordinary, bgs., c.l., dlvd lb. .07½- —
l.c.l., dlvd. lb. .08¼- .08½
titanated (high-strength), bgs., c.l., dlvd lb. .10 - —
l.c.l., dlvd lb. .11 - —
Lithopone prices, Pacific Coast, 1c per lb. higher.
Liverwort leaves, bls lb. .65 - .66
Lobelia herb, bls lb. .42 - .43
Leaves, NF lb 75 - 76
Lobeline sulphate, bots., works oz. 33.00 - 34.00
Logwood extract, crystals, No. 1, bbls., l.c.l lb. .41 - —
No. 2, bbls., l.c.l lb. .39 - —
liquid, No. 1, bbls., l.c.l lb. .20 - —
No. 2, bbls., l.c.l lb. .19 - —
No. 3, bbls., l.c.l lb. .18½- —
solid, No. lb. .35 - —
Lovage root, imported, bls lb. .65 - .75
Lupulin, tins lb 1.95 - 2.00
Lycopodium, cs. lb. 1.70 - 1.75
Lysine hydrochloride, dextro-laevo, bots kilo 145.00 - 149.00

M

Mace, Siauw, No. 1, bls lb. 1.00 - —
West Indian, No. 1, bls lb. .85 - .86
broken, cs lb. .70 - .72
Magnesia, calcined, tech., ctns., works lb. .32 .34¼
synth., rubber grade, ctns., works lb. .31 —
USP, light, ctns lb. .34 - .36
heavy, bbls lb. .36 - .38
Magnesite, chemical grade, bgs., c.l., works, frt. equald ton. 72.50 - —
dead-burnt, bulk, c.l., standard grain, Chewalah, Wash ton. 36.30 - —
Magnesium bromide, jars lb. .90 - 1.00
Carbonate, tech., bgs., c.l., frt. equald lb. .09½- —
l.c.l., frt. alld lb. .10½- —
bbls., c.l., frt. equald lb. .10¾- —
l.c.l., frt. alld lb. .11¾- —
kgs c.l., frt. equald lb. .12 - —
l.c.l., frt. alld lb. .13 - —
USP bgs., c.l., frt. equald lb. .11¼- —
l.c.l., frt. alld lb. .12¼- —
bbls., c.l., frt. equald lb. .11¾- —
l.c.l., frt. alld lb. .12¾- —
kgs., c.l., frt. equald lb. .13 - —
l.c.l., frt. alld lb. .14 - —
Magnesium carbonate is quoted frt. alld. to N. J except to Atlantic, Burlington Cape May, Cumberland, Glostershire, Ocean and Salem counties, and to Phila county, Pa Frt equald with N. Y C. on all other destinations.
Chloride, anhyd., lump., 95-98%, drums, c.l., works, frt. equald lb. .12¾- —
l.c.l., same basis lb .14 - .15
powd., bbls., works ton. 50.00 — —
hydrous, flake, dms., l.c.l., works ton. 49.00 - 51.00
Gluconate, dms., ctns lb. 1.30 - 1.37
Glycerophosphate, dms., works lb. 5.10 - 5.20
Hydroxide, NF, medicinals, bbls., dms., kgs lb. 26½ .30
Hypophosphite, dms lb 1.60 - —
Laurate, bbls. lb. .46 - .47
Metal, 99.8% ingots, cs., works lb. .24½- —
sticks, cs., works, frt. alld. on carlots lb. .42 - .44
Oleate, fused, bbls lb. .31 - —
Magnesium oxide (see Magnesia calcined).
Peroxide, 15%, dms., works lb. 1.00 - 1.05
Phosphate, tribasic, NF, bbls. lb. .75 - —
Silicate (see Talc).
Silicofluoride, bbls, works lb. .12 - .14
Sulphate (see Epsom salt).
Stearate, ctns., c.s. lb. .38 - —
ton lots lb. .39 - —
less ton lots lb. .40 - —
Trisilicate, USP, dms., 5,000-lb. lots lb. .38 - —
1,000-lb. lots lb. .40 - —
100-lb. lots lb. .45 - —
Bulky and super grades of magnesium trisilicate, 7c. per lb. higher.
Maleic anhydride, dms., c.l., divd. E. of Rockies lb. .37 - —
l.c.l., divd. E. of Rockies lb. .38 - —
Prices on maleic anhydride W of Rockies, 1½c. higher.
Malva flowers, black, bls lb. .90 Nom.
blue, bls lb. 1.65 - 2.00
Leaves, bls lb. .35 - .38
Mandrake root, bls lb. .29 - .30
Manganese acetate, bbls, divd lb. .32½- —
Arsenate, bgs lb. .16 - —
Borate, tech., bbls lb. .24 - —
Carbonate bbls., works lb. .21 - —
Chloride anhyd., dms., works lb. .20 - .22
Dioxide, African, 84-87%, 40,000 to 99,999-lb. lots, paper bgs., gross for net, works ton. 83.00 - —
paper-lined burlap bgs., works ton. 86.00 - —
dms., works ton. 86.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Gluconate, dms., ctns lb. 1.86 - 1.93
Glycerophosphate, NF, fib. dms. lb. 4.70 - 4.80
Manganese hydrate, bbls., dlvd. lb. .33¼- —
Hypophosphite, NF, dms lb. 2.00 - —
Linoleate, liquid, 4.35% Mn., dms. lb. .30½- —
solid, precip., 6.2% Mn., bbls lb. .33½- —
Metal, cs., dlvd. East lb. .30 - .32
Naphthenate, liquid 6% Mn., dms., frt. alld. lb. .25 - —
Oleate, precip., bbls lb. .33½- —
Resinate, fused, 5½% Mn., dms lb. .21¾- —
precip., dms lb. .24½- —
Stearate, ctns., c.l. lb. .36 - —
ton lots lb. .39 - —
less ton lots lb. .40 - —
Sulphate, fertilizer grade, 65%, bgs., c.l., dlvd. S. E. ton. 75.50 - —
l.c.l., dlvd., S. E. ton. 82.50 - —
feed grade, 75%, bgs., c.l., dlvd. S.E. ton. 87.50 - —
l.c.l., dlvd. S. E. ton. 94.50 - —
Tallate, 6%, dms lb. .21¾- —
Mangrove bark, E. Africa, 38% tannin, c.l., ex dock ton. 79.00 - 80.00
So. American, 30% tannin, c.l., ex dock ton. 58.50 - 60.00
Manna, flake, large, cs lb. 1.25 - 1.30
small, cs lb. .90 - .95
Mannitol, com'l, dms., works lb. .40 - .43
reagent, 50-lb. dms., works lb. .85 - —
Marjoram, Bohemian, bls lb. .23 - .23½
Chilean, bls lb. .20 - .20½
French, bls lb. .29 - .29½
Peruvian, bls lb. .22 Nom.
Matico leaves, bls lb. .25 - .35
Melamine, bgs., ton lots, works lb. .33 - —
500 to 2,000-lb lots, works lb. .33½- —
less 500 lbs., works lb. .38½- —
Menadione, USP, bots gram .06 - .06½
Menthol, natural, USP, Brazilian, cs lb. 5.20 - —
Japanese, cs lb. 6.90 - —
synthetic, USP, racemic, cns. lb. 4.95 - —
Menthyl salicylate, tins lb 4.00 4.25
Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .34 - .35
less ton lots, same basis lb. .36 - .37
Mercaptobenzothiazyl disulphide, bgs., fib. dms., ton lots, works, frt. alld lb. .42 - .42½
less ton lots, same basis lb. .44 - .45½
Mercury, ammoniated (see White precipitated).
Bichloride (see Corrosive sublimate).
Chloride (see Calomel).
Cyanide, NF VIII, powd., fib. dms. lb. 5.29 - —
Iodide, red, NF, fib. dms lb 6.22 - —
yellow, NF, fib. dms lb. 6.47 - —
Metal (see Quicksilver)
Oxide, red, NF (see Red precipitate).
tech (see Red, mercury oxide).
yellow, tech (see Yellow, mercury oxide).
USP, fib dms lb. 4.64 - —
Mesityl oxide, dms., c.l., dlvd. lb. .13¼- .14½
l.c.l., dlvd lb. .14 - .15
tanks, dlvd lb. .11½- .12½
Metaldehyde, dms., works lb. .95 - 1.25
Meta-aminophenol, distilled, dms., ton lots lb. 2.05 - —
less than ton lots lb. 2.50 - —
Metachloroaniline, dms., works lb. .80 - —
Metacresol, 98%, dms., c.l., works lb. 73½- —
l.c.l., works lb. 74½- —
Metanitroaniline, dms., frt. alld lb. 1.05 - —
Metanitroparatoluidin, bbls lb. 1.54 - —
Metaphenylenediamine, kgs., frt. alld. lb. .90 - —
Metatoluidine, bbls., c.l., works, frt. alld lb. .78 - —
l.c.l., same basis lb. .80 - —
tankcars, same basis lb. .76 - —
Metatolylenediamine, fib, dms., frt. alld lb. .94 - 1.00
Methanol, natural, denaturing grade, dms., c.l., frt. alld gal. .78 - —
l.c.l., frt alld gal. .79 - —
tanks, frt alld gal. .70 - —
Prices on natural methanol W of Miss. 3c. higher
synthetic, Zone 1, dms., c.l., frt. alld lb. .44 - .45½
l.c.l., frt. alld gal. .49 .50½
tanks, frt alld gal. .32 .33½
Zone 2, dms., c.l., frt. alld gal. .49½- —
l.c.l., ex whse gal. .54 - —
tanks, frt. alld gal. .35½- —
Synthetic methanol zones are:—Zone 1 is all continental U. S., E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of the U. S. west of above state boundaries, comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methenamine (see Hexamethylenetetramine)
Methionine, dextro-laevo, fib. dms., frt. alld. 50-lb or more lb 4.55 —
feed grade, 98%, fib., dms., same basis lb 3.00 —
97%, fib. dms. same basis lb 2.97 —
Methoxychlor 50% wettable powder, dealers, dms. cs., frt. alld lb. .61 .64
Methyl abietate, non-ret, dms., c.l., dlvd., zone 1 lb. .19½ —
l.c.l., same basis lb. .20 —
hydrogenated non-ret, dms., c.l., dlvd., zone 1 lb. .20 - —
l.c.l., same basis lb 20½- —
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Acetone, natural, dms., c.l., E. of Miss. frt. alld gal. .57 —
l.c.l., same basis gal. .68 —
tanks, same basis gal. .45 —
Natural methyl acetone prices W of Miss. 3½c. per gal. higher.
synthetic, dms., c.l., dlvd. E. gal. .66½- —
l.c.l., dlvd E gal. .72¼- —
tanks, dlvd. E gal. .54½- —
Synthetic methyl acetone East territory is all States East of and including Colo., Mont., N. Mex. and Wyo. West territory is all States West of those four.
Acrylate, dms., c.l., and truckload, works lb. .50 —
less than truckload works lb. .50½ —
tanks, works lb. .49 —
Alcohol (see Methanol).
Anthranilate, cns lb 2.35 2.40
extra, cns lb. 2.65 4.40
Benzoate, cns., dms lb. .53 .59
Bromide, jobbers, cyls., various sizes, works lb. .47 .61
Chloride, indust., cyl. works lb. .18 —
tanks, multi-unit works lb. .14 —
single-unit, works lb. .11½- —
refrigerator mfrs., cyls., dlvd lb. .39 .48
other consumers or service men, cyls. dlvd lb. .486 —
Cinnamate, cns. lb. 1.43 - 1.80
Cyclohexanol, dms., c.l., works lb. .34½ —
l.c.l. works lb. .35 —
tanks, works lb. .33 —
Formate refd., dms lb. .35 .40
tech., non-ret, dms., any quantity, works lb .08 —
tanks, works lb .07 —
Lactate dms. l.c.l., works lb .38 —
Methacrylate, dms., c.l., and truckload, frt. equald., with Belle, W. Va., and Arlington, N. J lb. .36½- —
less than truckload, same basis lb. .37 - —
tanks, same basis lb. .35 - —


U.S.I.
AROFLAT® 3050
For High Grade Self-Sealing Flats with Maximum Economy
The Complete line...
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For Flats of Top Quality Self-Sealing Color Retention and Flexibility

ALL THREE AROFLAT RESINS (in odorless or regular solvents) *brush easily*, with *good leveling*. All are *intercompatible* to permit maximum flexibility of formulation for adjusting the ratio of solids to fit your requirements.

Shipped in *tank cars* or *drums*, Aroflat resins are *easy to handle, ready to use*. And U.S.I. has long experience in producing alkyds in odorless solvent, having been *first in the industry* to offer them.

Prompt Service from conveniently located warehouses in all sections of the country. For full information on the *complete* alkyd line, call or write your nearby office of U.S.I.—*first* with complete flat vehicles; *first* with alkyds in odorless solvents; and *first* to offer a complete alkyd line.

U.S.I. INDUSTRIAL CHEMICALS CO.
Division of National Distillers Products Corporation
120 Broadway, New York 5, N. Y.
Offices in Principal Cities

Methyl parahydroxybenzoate, USP, bots. lb. 2.10 - 2.20
fib. dms. lb. 1.90 - 2.00
Rosaniline chloride, NF, fib. dms. lb. 5.40 - —
Salicylate, USP, dms., 500 lbs. lb. .50 - —
cns., 50 lbs. lb. .55 - —
Testosterone, USP, 100 gms. gm. 1.75 - —
Methylal, refined, 97%, dms., c.l., works lb. .12¾ - —
l.c.l., works lb. .13½ - —
tanks, works lb. .11 - —
tech., 92%, dms., c.l., works gal. .85 - —
works gal. .85 - —
l.c.l., works gal. .90 - —
tanks, works gal. .70 - —
Methylamyl acetate, dms., c.l., dlvd. E lb. .14¾ - —
l.c.l., dlvd. E lb. .15½ - —
tanks, dlvd. E lb. .13 - —
Ketone, dms., works lb. 1.05 - —
Methylcellulose, special, vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .78 - —
2,000 lbs., and more, same basis lb. .80 - —
smaller lots, frt. alld. on 100 lbs. .85 - .97
standard vis. (15-400 cps.), 50-lb. bgs., c.l., alld. lb. .66 - —
2,000 lbs. and more, same basis lb. .68 - —
smaller lots, frt. alld. on 100 lbs lb. .72 - .85
Methylene blue, 100-lb. lots, kgs., frt. adjusted lb. 3.25 - 3.60
smaller lots, kgs., same basis lb. 3.40 - 3.60
Chloride, industrial, dms., c.l., dlvd. E lb. .13½ —
Methylethylketone, dms., c.l., dlvd. lb. .12¾ - .13¾
l.c.l., dlvd. lb. .13½ - .14½
tanks, dlvd. lb. .11 - .12
Methylethylpyridin, dms., c.l., works. lb. .47½ - —
l.c.l. works lb. .48 - —
tanks, works lb. .46 - —
Methylheptin, carbonate, bots. lb. 35.00 - 45.00
Methylionone, A, cns lb. 6.55 - 8.80
D, cns lb. 7.50 - 9.55
prime, cns. lb. 4.55 - 6.40
Methylisobutyl carbinol (See Carbinol methylisobutyl).
Ketone, dms., c.l., dlvd. lb. .14¾ - —
l.c.l., dlvd. lb. .15½ - —
tanks, dlvd. lb. .13 - —
Methylnaphthyl, ketone, cans. lb. 3.00 - 3.75
Methylparaben (see Methyl parahydroxybenzoate).
Methylpentanediol (see Hexyleneglycol).
Methylphenylpyrazolone, 250-lb. dms., dlvd lb. 1.60 - 1.70
less than 250 lbs., dms., dlvd. lb. 1.80 - 1.90
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works lb. .04½ - —
roofing, 20 to 80 mesh, works lb. .03⅜ - —
wet-grd., biotite, bgs., c.l., works, frt. alld., E lb. .05¾ - —
l.c.l., ex whse. or frt. allg. E lb. .06½ - —
extra fine, bgs., c.l., works, frt. alld., E lb. .05¾ - —
l.c.l., ex whse. or frt. allg. E lb. .06½ - —
paint or facg., bgs., c.l., works, frt. allg., E lb. .07¼ - —
l.c.l., ex whse. or frt. allg. E lb. .08 - —
rubber, bgs., c.l., works, frt. allg. E lb. .07 - —
l.c.l., ex whse. or frt. allg. E lb. .07¾ - —
wallpaper, bgs., c.l., works, frt. allg. E lb. .07¼ - —
l.c.l., ex whse. or frt. allg. E lb. .08 - —
white, extra, fine, bgs., c.l., works, frt. allg. E lb. .07¼ - —
l.c.l., ex whse. or frt. allg. E lb. .08 - —
Mica, wet-grd., W. of Miss. R., ¼c. higher; W. of Rockies, 1c. higher.
Milk powder, skimmed, roller, bbls., c.l. lb. .16 - .18¾
spray, bbls., c.l. lb. .17 - .19¾
whole, roller, bbls., c.l. lb. .34 - .36
spray, bbls., c.l. lb. .35½ - —
Sugar, crude, ogs., c.l., works. lb. .18 - —
edible, bgs., works, 30,000-lb. lots, works lb. .24 - —
2,000-lb. lots, works lb. .24¾ - —
200-1,800-lb. lots, works lb. .25¼ - —
Edible milk sugar in fib. dms., 1c. higher.
USP, fib. dms., 30,000-lb. lots, works lb. .29 - —
2,000-lb. lots, works lb. .29¾ - —
200-1,800-lb. lots, works lb. .30¼ - —
USP milk sugar in bgs., 1c lower.
Mineral spirits (see Petroleum mineral spirits).
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .09 - —
New York gal. .10 - —
Molybdenum metal, 50% Mo, powd., kgs lb. 3.00 Nom.
Trioxide, pure, kgs., works, basis Mo. content lb. 1.35 - —
technical, kgs. works, basis Mo. content lb. 1.13 - 1.14
Monobutylamine, dms., c.l., E. of Rockies lb. .54¾ - —
l.c.l., same basis lb. .55¾ - —
tanks, same basis lb. .53 - —
Monochlorobenzene, dms., c.l., frt. allg. or dlvd. E lb. .10½ - .11¼
l.c.l., same basis lb. .11½ - .12½
tanks, same basis lb. .09 - .10
Monochlorobenzene prices in the West, 1¼c. higher.
Monoethanolamine, dms., c.l., dlvd. E. lb. .29¾ - —
l.c.l., same basis lb. .30¾ - —
tanks, same basis lb. .28 - —
Monoethylmonoanaphthylamine, dms., works lb. .88 - —
Monoethylamine, 70% contained amine, dms., c.l., dlvd lb. .32 - —
l.c.l., dlvd lb. .33 - —
tanks, dlvd lb. .30¼ - —
Monoethylaniline, dms., c.l., frt. allg. lb. .51 - .57
l.c.l., frt. allg lb. .52 - .58
tanks, frt. allg lb. .50 - .56
Monoethylorthotoluidin, bbls lb. .80 - —
Monoisopropylamine, dms., c.l., frt. allg. E. of Rockies lb. .29½ - —
l.c.l., same basis lb. .30½ - —
tanks, same basis lb. .28½ - —
Monomethylamine, 25%-40%, dms., c.l., works, basis 100%, lb. .35 - —
l.c.l., same basis lb. .35½ - .36
tanks, same basis lb. .31 - —
Monosodium fluoroacetate (see Sodium fluoroacetate monobasic).
Glutamate (see Sodium glutamate, monobasic.
Phosphate (see Sodium phosphate monobasic).
Mono-tertiary butylmetacresol, dms., c.l., works lb. .49 - —
l.c.l., works lb. .50 - —
tanks, works lb. .48 - —
Morphine, cns. oz. 12.40 -12.60
Acetate, anhyd., cns. oz. 9.85 -10.00
Hydrobromide, cns oz. 9.90 - 9.95
Hydrochloride, NF, cns. oz. 9.90 - 9.95
Sulphate USP cns oz. 9.90 -10.05
Morpholine, dms., c.l., dlvd. E lb. .60¾ - —
l.c.l., dlvd E lb. .61¾ - —
tanks, dlvd. E lb. .59 - —

Mullein flowers, cs. lb. 2.00 - 2.03
Leaves, bls. lb. .21 - .25
Musc, natural, Tonquin grains, bots. oz. 40.00 -55.00
synthetic, ambretta, 100-lb. lots, fib. dms. lb. 5.35 - —
25-lb. lots, cns. lb. 5.40 - —
5-lb. lots, cns. lb. 5.55 - —
ketone, 100-lb. lots, fib. dms. lb. 5.30 - —
25-lb. lots, cns. lb. 5.35 - —
5-lb. lots, cns. lb. 5.50 - —
xylol, 100-lb. lots, fib. dms. lb. 1.50 - —
25-lb. lots, cns. lb. 1.55 - —
5-lb. lots, cns. lb. 1.70 - —
Musk root, bls. lb. 1.60 - 1.65
Mustard seed, Calif. brown bgs., f.o.b. source lb. .12 —
Danish, yellow, bgs. lb. .10¾ - .11
Dutch, yellow, bgs. lb. .10½ - .11
English, yellow, bgs. lb. .12½ - .14
German, yellow, bgs. lb. .10½ Nom.
Japanese yellow, bgs. lb. .10 - .10¼
Montana, brown, bgs., f.o.b. source, Sept.-Oct. shipment lb. .08 - —
oriental, bgs., source, Sept.-Oct. shipment lb. .05½ - —
yellow, bgs. source, Sept.-Oct. shipment lb. .09¼ - —
Myrobalans, Ji, ord. bgs., ex dock. ton. 47.00 - —
assorted, ex dock ton. 48.50 - —
crushed, bgs., ex dock ton. 65.00 -66.00
Extract, Indian solid, 53% tannin, ex dock plus duty lb. .07 - —

N

Naphtha, painters (see Petroleum naphtha V. M. & P.).
Solvent (see S).
Naphthalene, dom., crude, 74° tanks, frt. equald lb. .0625 - —
78°, dms., c.l., same basis lb. .0765 - —
l.c.l., same basis lb. .0790 - —
tanks, same basis lb. .0675 - —
refined, industrial, bbls., c.l., frt. equald lb. .11¾ - —
bgs., c.l., same basis lb. .11¼ - —
tanks, same basis lb. .10¾ - —
balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. lb. .14½ - —
cs., 50 lbs. c.l., same basis lb. .14¾ - —
1-lb. pkgs. c.l., same basis lb. .17 - —
imported, crude, 78° targe lots. lb. .04 - —
Neocinchophen, USP, dms., frt. adjusted lb 7.00 - 8.00
Neomycin, fib. dms., 100-kilo lots, basis activity gm. .60 - —
1-kilo lots gm. 1.20 - —
Nepheline syenite, glass, 24 mesh, bulk, works ton. 14.25 - —
pottery, 200 mesh, bulk, works, N.Y. ton. 18.25 - —
Nepheline syenite in bgs., $3 per ton higher than bulk.
Nerolin, cns lb. 2.25 - 2.65
Niacin (see Acid nicotinic).
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd lb. .60 - .60½
Carbonate, bbls., dlvd lb. .66¼ - —
Chloride, bbls., dlvd lb .34½ - —
Cyanide, bots., dms lb. 2.75 - 4.50
Formate, bbls., ton lots, frt. alld. lb. .58½ - .59½
Metal, electro cathodes, cs., works. lb. .56½ - —

Methyl Parahydroxybenzoate—Nitrocellulose

Nickel nitrate, bbls., works lb. .33½ - —
Oxide, black, bbls lb. .63¼ - —
Sulphate, bgs., c.l., dlvd lb. .26¼ - —
l.c.l., dlvd lb. .26¾ - —
Nicotinamide, USP, dms., frt. adjusted kilo. 12.00 -12.30
Hydrochloride, dms. frt. adjusted kilo. 11.50 -11.80
Nicotine sulphate, 40%, 50-lb. dms., dealers, frt. allg. over 70 lbs. dm. 49.40 - —
10-lb tins, dealers, frt. allg. on cases of 6 tin 10.05 - —
Niger seed, bgs., afloat lb. .11½ - .12
Nikethamide, chvs lb. 7.50 - 8.00
Nitrobenzene, dbl. dist., dms., c.l., frt. allg lb. .10½ - .11¼
l.c.l., frt. allg lb. .11½ - .12¼
tanks, frt. allg lb. .09½ - .10½
Nitrocellulose, ester-soluble, 30-35 cps., ½, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175, secs., bbls., c.l., works lb. .33 - —
l.c.l., same basis lb. .34 - .36
18-25 cps., bbls., c.l. lb. .35 - —
l.c.l., same basis lb. .36 - .38
250-400, 600-1,000 secs., bbls., same basis lb. .42 - —
l.c.l., same basis lb. .43 - .45
spirit-soluble, 30-35 cps., ¼, ½, sec., bbls., c.l., same basis. lb. .45 - —
l.c.l., same basis lb. .46 - .48
5-6, 40-60 secs., bbls., c.l., same basis lb. .44 - —
l.c.l., same basis lb. .45 - .47
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

FORMULATIONS based on styrenated Epon® resin esters offer coating manufacturers a combination of qualities unequalled with other resins. For instance:

Very fast dry—You can make an *air-dry* metal finish that sets to touch in less than 10 minutes . . . is tack-free in less than an hour. You get an exceptionally hard, flexible finish that is both tough and alkali-resistant! If your product is baked dry, you can maintain an even faster production rate.

Styrenated Epon resin esters contribute all the other advantages of the Epon resin formulations: extremely high chemical resistance, exceptional flexibility and abrasion resistance.

Tests prove that surface coatings prepared from this vehicle are unaffected after 5 days' immersion in 3% sodium hydroxide solution at room temperature. Outdoor tests prove styrenated Epon resin esters far superior in durability to all other styrenated finishes tested.

For samples of Epon resin and more information on Epon resin esters SD-62-N-3 and L-6-N-3, just drop us a note.

SHELL CHEMICAL CORPORATION
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Eastern Division: 500 Fifth Avenue, New York 36 . Western Division: 100 Bush Street, San Francisco 6
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IN CANADA: Chemical Division, Shell Oil Company of Canada, Limited . Toronto . Montreal . Vancouver

Nitroethane—Oil, Pine

Nitroethane, dms., dlvd. E. of Rockies lb. .25 - —
Nitrogen solution, tanks, works, 37-40.8% N. ton.120.00 - —
Nitrogenous process tankage, bulk, works unit-ton. 3.00 Nom.
Sewage sludge, bulk, works unit-ton. 3.75 ÷ .50
Nitromethane, dms., l.c.l., dlvd. E. of Rockies lb. .25 - —
Nitropropane 1, dms., dlvd. E. of Rockies lb. .23¼- —
2, dms., dlvd. E. of Rockies lb. .25 - —
Nonylphenol, dms., c.l., works lb. .33½- —
l.c.l., works lb. .33¾- —
tanks, works lb. .33¼- —
Nutgalls, Aleppo, bgs lb. .30 - —
Chinese, bgs lb. .32 - —
Istrian, bgs lb. .31 - —
Nutmeg, East Indian, whole, es. lb. .33 - .34
shrivels, bgs lb. .32 - .33
West Indian, bgs lb. .30 - .31
Nux vomica, bls lb. .10 - .12
powdered, bbls., bxs lb. .13 - .14

O

Octane, 100°-140°C., industrial grade, group 3, dms., c.l gal. .19 - —
l.c.l. gal. .21 - .60
tanks gal. .15½- —
10°C., b.r., Bayonne, N. J., tanks, gal. .18 - —
Octanol, normal, tech., dms., c.l., dlvd lb. .419 - —
l.c.l., dlvd. lb. .439 - —
tanks, dlvd. lb. .394 - —
Octyl methacrylate, normal, dms., less than truckload, works lb. .23 - —
Octylphenol, dms., c.l., works lb. .26¾- —
l.c.l., works lb. .27¼- —
tanks, works lb. .25¾- —
Oil, ahles siberica, cns lb. 2.50 - 3.10
Almond, artificial, bitter (see Benzaldehyde).
natural, bitter, F.P.A., bots lb. 2.75 - 4.75
NF, bots lb. 2.85 - 3.75
sweet, USP, dms., cns lb. .85 - .90
Allspice (see Oil, pimento).
Amyris, dms. lb. 1.75 - 2.00
Angelica root, bots lb.80.00 -115.00
seed, bots lb.50.00 -85.00
Anilin (see A).
Anise, USP, Chinese, dms lb. 2.25 - 2.50
Apricot, kernel, USP, dms lb. .34 - .60
Avocado, cns., dms lb. No prices.
Babassu, crude, tanks lb. No stocks
Bay, NF, Puerto Rican, 50-55%, cns lb. 1.55 - 1.90
55-60%, cns lb. 1.65 - 2.10
West Indian, 50-55%, cns., dms lb. 1.50 - 2.25
Bergamot, artif., cns lb. 2.90 - 3.00
natural, NF, Italian, cns lb.14.50 -14.85
Birchtar, crude, cns lb. 1.90 - 2.00
rectified, NF, cns lb. 2.95 - —
Bois de rose, Brazil, dms lb. 3.85 - 4.00
Mexican (see Oil, lignaloe wood).
Bone, dms., works lb. .65 - .70
Cajeput, redist, USP, cns lb. 2.20 - 3.00
tech., cns lb. 1.85 - 2.85
Calamus, cns lb.16.00 -20.00
Camphor sassafrassy, dms lb. .36 - .42
white, dms lb. .26 - .50
Cananga, native, cns lb.10.35 -11.50
rectified, cns lb.11.00 -14.50
Oil, capsicum (see Capsicum oleoresin).
Caraway, NF, cns lb. 3.35 - 4.25
Cardamom, NF, bots lb.45.00 -65.00
Cassia, USP, cns., dms lb. 5.25 - 7.50
Castor, blown, dms., c.l lb. .2900- —
l.c.l. lb. .2950- —
dehydrated, bodied, dms., c.l., lb. .3210- —
l.c.l. lb. .3260- —
tanks lb. .3110- —
unbodied, dms., c.l lb. .3060- —
l.c.l. lb. .3110- —
tanks lb. .2960- —
hydrogenated, bgs lb. .3425- .3475
No. 1, Brazilian, tanks lb. .25 - .25¼
USP, dms., c.l lb. .2700- —
l.c.l. lb. .2750- —
tanks lb. .2600- —
refined and deodorized, dms., c.l lb. .2850- —
l.c.l. lb. .2900- —
tanks lb. .2750- —
No. 3, tech., dms., c.l lb. .2675- —
l.c.l. lb. .2725- —
tanks lb. .2575- —
sulphonated, 50% (48% fat), dms., l.c.l lb. .16½- .17
75% (60-62% fat), dms., l.c.l. lb. .23 - .23½
Cedarleaf, cns., dms lb. 2.25 - 2.80
Cedarwood, cns., dms lb. .48 - .70
Celeryseed, bots lb.16.50 -21.00
Chamomile, blue, Hungarian, bots. lb.250.00 -260.00
Chaulmoogra, NF, cns., dms lb. .55 - .70
Chinawood (see Oil, tung).
Cinnamon bark, USP, bots lb.23.00 -60.00
leaf, Ceylon, bots lb. 2.00 - 3.25
Citronella, Ceylon, cns., dms lb. .55 - .90
Java, true, cns lb. 1.10 - 1.90
Java type, cns lb. .45 - .85
Clove, USP, from buds, cns., dms. lb. 8.50 -11.00
Oil, coconut, crude, tanks, N. Y. lb. .15½- —
Pac. Coast lb. .14¼- —
refined, Cochin type, tax incl., ret. dms., l.c.l. lb. .23½- —
deodorized, tax incl., non-ret. dms., c.l. lb. .24¾- —
Cod, Newfoundland, dms lb. .10 - .10½
Codliver, USP, dms gal. 1.55 - 1.65
Copaiba, cns lb. 2.00 - 2.50
Coriander, USP, bots lb.21.00 -26.50
Corn, crude, tanks, works lb. .14¼- —
foots (soapstock), acid, 95%, tanks, N. Y. lb. .04 - —
raw, 50%, tanks, same basis. lb. .02 - —
refined, dms. lb. .19 - .19½
tanks lb. .17½- —
Costus, bots. oz.14.00 -25.00
Cottonseed, crude, tanks, Southeast lb. .13¾- —
Valley lb. .13¾- —
Texas lb. .13½- —
foots (soapstock), acid, 95%, tanks, N. Y. lb. .03½- —
raw 50%, tanks, same basis. lb. .01½- —
salad, dms. lb. .19¼- .19½
tanks lb. .17¾- —
Creosote (see Creosote, coaltar).
Croton, cns lb. 4.30 - 5.50
Crude (see Petroleum, crude).
Cubeb, cns lb. 4.30 - 6.75
Cumin, bots. lb. 4.90 - 6.00
Cypress, bots lb. 6.00 - —
Degras (see D).
Dillseed, India, bots lb. 3.55 - 4.05
Dillweed, domestic, bots., dms. lb. 4.75 - —
Dip (see D).
Erigeron, cns lb. 6.50 - 7.50
Eucalyptus, NF, rectified, 80-85%, dms lb. 1.00 - 1.35
70-75%, dms lb. .85 - 1.25
Fennel, sweet, USP, cns lb. 2.30 - 3.50
Fir, Canada, cns lb. 2.65 - 2.90
Fish, refined, alkali, dms lb. .1410- —
kettle-bodied, dms lb. .1610- —
light-pressed, dms. lb. .1260- —
tanks lb. .1100- —
Fishliver, crude, for feeds for concentrating, 4,000 to 12,000 A units per gm., dms., 1,000,000 units. .13 - .13¼
10,000 to 30,000 A units per gm., dms 1,000,000 units. .12 - .12¼
35,000 to 35,000 A units per gm., dms 1,000,000 units. .12 - .12¼
40,000 to 55,000 A units per gm., dms 1,000,000 units. .12 - .13
prime, nat. or conc., 100,000 A units per gm., dms. 1,000,000 units. .13 - —
200,000 A units per gm., dms. 1,000,000 units. .15 - —
300,000 A units per gm., dms. 1,000,000 units. .15 - —
400,000 A units per gm., dms. 1,000,000 units. .15 - —
500,000 A units per gm., dms. 1,000,000 units. .15 - —

Prices above are based on the USP XIV method of conversion, Morton-Stubbs Corrected E x 1900.

Fusel (see F).
Garlic, pure, bots. oz. 7.25 -10.00
Gaultheria (see Oil, wintergreen).
Geranium, Algerian, cns lb.12.25 -16.50
Bourbon, cns lb.12.50 -16.50
Turkish (see Oil, palmarosa).
Ginger, dist., bots lb.14.50 -15.00
Grapefruit, dms lb. 2.40 - 3.25
Grease, No. 1, dms lb. .10½- .11½
extra, winter, strained, dms. lb. .11½- .12½
prime, burning, dms lb. .12½- .13½
Guaiacwood, cns lb. 1.60 - 1.90
Hemlock, cns lb. 2.10 - 2.50
Juniper berry, NF, VIII, bots lb. 2.50 - 2.75
twice rectified, bots lb. 3.60 - 7.00
Tar, NF (see Juniper tar).
Wood, tech., cns lb. .65 - 1.00
Lard (see Oil, grease).
Laurel, dms., cns lb. 9.75 12.50
Lavandin, dms., cns lb. 2.75 - 3.25
Lavender, flower, USP, French, 30-32% ester, cns lb. 3.10 - 4.75
38-40% ester, cns lb. 4.85 - 6.75
40-42% ester, cns lb. 6.00 - 6.75
Spike, Spanish, cns lb. 1.50 - 2.00
Lemon, USP, Calif., cns., dms lb. 5.75 - 6.05
Messina, cns lb. 5.75 - 9.50
Lemongrass, cns., dms lb. .75 - 1.40
Lignaloe wood, Mexican, cns lb. 3.15 - 4.50
Lime, distilled, Mexican, cns lb. 6.00 - 7.85
West Indian, cns lb. 7.40 - 9.25
expressed, West Indian, cns lb. 7.25 - 9.25
terpeneless, bots lb.45.00 -65.00
Linseed, raw, dms., c.l., N. Y. lb. .1790- —
l.c.l. lb. .1840- .1890
tankcars, f.o.b. Minneapolis lb. .1500- —
New York lb. .1625- —
tankwagon, N. Y. lb. .1655- —
Boiled, linseed oil, .006c. per lb. higher.
Mace, dist., cns., dms lb. 2.95 - 4.25
Mandarin, Floridian, dms lb. 4.00 - 5.00
Italian, cns lb. 6.50 -12.00
Menhaden, crude, tanks, Balto lb. .07½- —
Mineral, white (see Oil, white, mineral).
Mirbane (see Nitrobenzene).
Mustard seed, ref., dms lb. .16 - .16¼
synthetic, cns., dms lb. 1.60 - 1.85
Neatsfoot, 15°, dms lb. .31 - .33
20°, dms. lb. .30 - .32
30°, dms. lb. .28 - .30
Neroli, NF, French, bots lb.216.00 -275.00
petale, bots lb.40.00 -150.00
Nutmeg, USP dist., East Indian, cns., dms lb. 3.35 - 4.05
West Indian, cns., dms lb. 2.95 - 3.50
Ocotea cymbarum, dms lb. .50 - 1.00
Oiticica, liquid, dms lb. .25¾- .26¾
tankcar lb. .24½- .25¼
Oleo, extra, dms lb. .12½- .13
Olibanum, bots lb. 5.50 - 7.65
extra fine, bots lb 8.00 - —
Olive, commercial, dms gal. 2.05 - —
edible, dms., duty paid gal. 2.35 - 2.50
foots, dms. lb. .15 - .15¼
Orange, sweet, dist., cns lb. .70 - .85
expressed, USP, Brazilian, cns., dms lb. No stocks
Calif., cns lb. 1.00 - 1.75
Florida, cns., dms lb. 1.00 - 1.50
Messina, cns lb. 4.00 - 5.85
West Indian, cns lb. 2.75 - 3.35
sesquiterpeneless, bots lb.150.00 -180.00
Origanum, Spanish, cns lb. 2.15 - 2.75
Palm, clarif., dms lb. .12½- .13
tankcars lb. .1130- —
Palmarosa, cns lb. 7.35 - 8.40
Palm kernel, in bond, tanks lb. .15¼- —
Paraffin, pale, 100-110 vis., at 100°F. tanks, East Coast refinery gal. .14 - —
Patchouli, dms lb. 7.25 - 8.75
Peach kernel, USP (see Oil, apricot kernel)
Peanut, crude, tanks, Southeast, lb. .23 - —
refined, dms lb. .28 - .28¼
tanks lb. .26½ Nom.
Pennyroyal, USP, imported, cns lb. 2.00 - 2.40
Peppermint, natural, dms lb. 5.15 - 7.25
redist., USP, dms lb. 5.45 - 8.25
Persic, USP (see Oil, apricot kernel)
Petitgrain, Paraguay, cns., dms. lb. 2.50 - 3.10
Pimento berry, NF, dms lb. 4.65 - 5.75
leaf, cns. lb. 2.35 - 3.25
Pine, dest., dist., dms., extra, c.l., works gal. 73½- —
l.c.l. gal. 76½- —
white gal. 85½- —
steam dist., dms., ex whse., N.Y.C lb. .127 - .130

Thousands of buyers know that Exchange Oil of Orange meets these qualifications consistently. They know that rigid, day-to-day laboratory control, combined with years of experience as the leader in the citrus products field, guarantees that Exchange Oil of Orange will always meet their most critical specifications.

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SUNKIST GROWERS
PRODUCTS DEPARTMENT • ONTARIO, CALIFORNIA
PRODUCING PLANT:
The Exchange Orange Products Co., Ontario, Calif.

Oil, pineneedle, Siberian (see Oil, abies siberica).			
Putty, petroleum, dms., c.l., dlvd.	lb.	.11	—
l.c.l., same basis	lb.	.12	—
tanks, same basis	lb.	.10	—
Rapeseed, tankcars	lb.	.16½	—
Red (see Acid, oleic).			
Rice, bran, clarif., dms	lb.	.16	—
crude, tanks, dlvd. E	lb.	.12½	—
Rose, natural, Bulgarian, bots.	oz.	55.00	62.25
Rosemary, Spanisn, tech., cns., dms	lb.	.60	.90
USP, cns., dms	lb.	.80	1.10
Rue, bots	lb.	1.85	2.65
Safflower, dms., c.l., Atlantic coast.	lb.	.17	—
tanks, same basis	lb.	.15½	—
Sage, clary, bots	lb.	20.00	25.00
Dalmatian, cns	lb.	7.50	9.75
Spanish cns	lb.	.90	1.25
Sandalwood, NF, cns	lb.	9.75	11.80
Sardine, crude tanks Pac. coast.	lb.	No stocks.	
Sassafras, artificial, dms	lb.	.55	.70
natural Brazilian (See Oil, ocotea cymbarum).			
domestic, USP, cns., dms	lb.	1.90	2.25
Savin, cns	lb	2.75	3.00
Savory, cns	lb	No stocks.	
Sesame, refd., dms	lb.	.35½	.37
Shingle stain, tar distillate, dms., c.l. works	lb.	.31	—
l.c.l. works	lb.	.33	—
tanks, works	lb	.21	—
Snakeroot, Canada cns	lb	31.00	35.00
Soybean, crude, tanks, mills	lb.	.12¼	—
foots (soapstock), acid, 95% tanks, N. Y.	lb.	.04¾	—
raw, 50% tanks, N. Y.	lb.	.02	—
refined, alkali, dms., c.l.	lb.	.1625	—
l.c.l.	lb.	.1675	.1700
tanks	lb.	.1475	—
clarified, dms., c.l.	lb.	.1525	—
l.c.l.	lb.	.1625	.1650
tanks	lb.	.1425	—
salad, dms.	lb.	.1675	.1700
tanks	lb.	.1500	—
Spearmint, USP, dms	lb.	7.75	9.00
Sperm, bleached, winter, 45°, dms	lb.	.1630	.1660
tankcars	lb.	.1520	—
natural, winter, 45°, dms	lb.	.1510	.1560
tankcars	lb	1400	—
Spruce, cns., dms	lb.	2.10	2.75
Sweet birch USP, Northern, cns.	lb	4.95	8.00
Southern, cns	lb	2.00	3.25
Tall, crude, tanks, works	lb.	.02¼	.02½
refined, dms., c.l., works	lb.	.06¼	.07¼
l.c.l., works	lb.	.06½	.07½
tanks, works	lb.	.05	.06
Tallow, acidless, dms	lb.	.09¾	.10¼
Tansy, dms	lb.	8.25	9.00
Tar, pine, com'l, dms., extra, c.l., works	lb	.0488	—
l.c.l., works	lb.	.0545	—
whse	lb.	.0655	—
tanks, works	lb.	.041	—
rectified, N F, l.c.l., dms ex. tra works, South	gal.	.67	—
whse N Y C.	gal.	.77	—
Tar acid (see T).			
Theobroma (see Cocoa butter).			
Thyme, NF red, cns., dms	lb	1.90	3.75
white cns	lb	2.25	4.00
Tung, dom., tanks, mills	lb.	.3450	.3500
imported, dms., c.l.	lb.	.3750	.3800
l.c.l.	lb.	.3800	.3850
tanks	lb.	.3600	.3650
Turkey red (see Oil, castor, sulphonated).			
Turpentine NF, cns., dms	lb.	.20	.40
Vetiver, Bourbon, cns	lb.	20.00	28.50
Haitian, cns	lb.	17.50	26.00
Java, cns	lb.	35.00	—
Wheat germ, 5-gal dms	gal.	11.00	13.00
White mineral, tech., 50-65 vis., dms., c.l.	gal.	.51½	.54½
l.c.l.	gal.	.56½	.57½
65-75 vis., dms	gal.	.52½	.55½
l.c.l.	gal.	.57½	.58½
NF, 80-90 vis., dms., c.l.	gal.	.53½	.56½
l.c.l.	gal.	.58½	.59½
125-135 vis., dms., c.l.	gal.	.59½	.62½
l.c.l.	gal.	.64½	.65½
145-155 vis., dms., c.l.	gal.	.66	.68½
l.c.l.	gal.	.71	.71½
175-185 vis., dms., c.l.	gal.	.69½	.73
l.c.l.	gal.	.74½	.76
USP, 200-210 vis., dms., c.l.	gal.	.72½	.75
l.c.l.	gal.	.77½	.78
345-355 vis., dms., c.l.	gal.	.77	.80
l.c.l.	gal	.83	.85
Wintergreen, USP, nat., Northern, cns	lb.	5.75	14.50
Southern, cns	lb	3.25	19 50
synthetic (see Methyl salicylate)			
Wood (see Oil, tung).			
Wormseed, cns.	lb.	8.00	9.25
Wormwood, cns	lb.	5.55	6.85
Ylang-ylang, Bourbon, bots	lb	18 00	30 00
extra, bots	lb.	25.00	Nom.
Madagascar bots.	lb	No stocks	
Oleostearin, bbls.	lb.	.08½	.09
Olivine aggregate, c.l., mines crushed 8 mesh bulk, c.l works	ton.	7 00	9.50
paper, bgs, c.l., works	ton	12 00	—
Opium, USP, cns	lb.	19.20	19.45
gran., USP, cns	lb.	21 65	21.90
powd., USP cns	lb.	21 65	21 90
Orange, cadmium, lithopone, bbls., frt. alld. E. of Rockies	lb.	1.52	—
Chrome, C.P. bbls., dlvd N. of Tenn and N. C., E of Miss. R., include Davenport, Penn. and N. C. E. of Minneapolis, Rock Island, St. Louis, St. Paul	lb.	.31	—

Chrome orange prices are ½c. higher dlvd Ala., Fla., Ga., La. (Shreveport), 1¼c. Miss., N. C., S. C., Tenn., Dallas and Ft. Worth, Tex., 1½c. El Paso, Tex., 2c. Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1.6c. higher dlvd Pac. Coast, for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.

Dinitroaniline toner	lb	1.30	—
Mineral, American, bbls., l.c.l., ship't point, frt. alld	lb.	.2010	—
Molybdated, bbls	lb.	.44	—
Orthonitroaniline toner, kgs	lb.	1.15	—
Persian, bbls	lb	.65	—
Orange flowers, bls	lb.	.55	.56
Peel, bitter, Haitian, bls	lb.	.12	.14
sweet, bls	lb.	.14	.16
Oregano, Italian, bgs	lb.	.17	.17½
Mexican, bgs	lb.	.15	.19
Portuguese, bgs	lb.	.15½	.18½
Orris root, Florentine, bls	lb.	.20	.22
powdered, bbls., bxs	lb.	.25	.26
Verona, bls	lb.	.14	.15
powdered, bbls., bxs	lb.	.19	.24
Orthoaminobiphenyl, dms., c.l., works	lb.	.32½	—
l.c.l., same basis	lb.	.33	—
tanks, same basis	lb.	.37	—
Orthoanisidin bbls	lb.	.68	.70
Orthochloroaniline, dms., c.l.	lb.	.65	.70
l.c.l.	lb.	.67	.72
Orthochlorobenzaldehyde, dms., works	lb	1.18	—
Orthochloroparanitroaniline dms., dlvd	lb.	.86	—
Orthochlorophenol, dms. c.l., frt. equald	lb.	.34½	—
l.c.l., same basis	lb	.35½	—
Orthocresol, pure, 30° C, non-ret., dms., c.l. frt. equald	lb.	.198	—
l.c.l., same basis	lb.	.201	—
ret. dms. c.l. same basis	lb	.195	—
l.c.l., same basis	lb.	.20	—
Orthocresol, pure, 29° C, non-ret. dms., c.l., same basis	lb.	.188	—
l.c.l., same basis	lb.	.191	—
ret. dms., c.l., same basis	lb.	.185	—
l.c.l., same basis	lb.	.19	—
34-29° C, non-ret. dms., c.l., same basis	lb.	.153	—
l.c.l., same basis	lb.	.156	—
tanks, same basis	lb.	.140	—
Orthodichlorobenzene, dms. c.l., works, frt. alld. E. of Rockies	lb.	.11¼	.13¼
l.c.l., same basis	lb.	.12¼	.14¼
tanks, same basis	lb.	.09¾	.11¾
Orthoisopropyl N phenylcarbamate (see IPC)			
Orthonitroanilin, dms	lb.	.50	.56
Orthonitrochlorobenzene, dms	lb.	.20	.21
Orthonitrobiphenyl tech. dms., c.l., works	lb.	.14½	—
l.c.l. works	lb.	.15	—
tanks, works	lb.	.13	—
Orthonitroparachlorophenol, cns	lb.	.75	—
Orthonitrophenol, bbls. works	lb.	.94	—
Orthonitrotoluene, dms., c.l., frt. alld.	lb.	.10	—
l.c.l., frt. alld	lb.	.11	—
tanks, frt. alld	lb.	.09	—
Orthophenetidin dms., works	lb.	1.00	—
Orthophenylphenol fib dms., works.	lb.	.20	.44
Ortho-tertiary-amylphenol, dms., c.l., works	lb.	43¾	—
l.c.l., works	lb.	46¾	—
tanks, works	lb.	41¾	—
Orthotoluidin, dms., c.l., works	lb	23	—
l.c.l., same basis	lb	24	—
tanks, same basis	lb	.22	—
Osage orange, crystals, No. 1, bbls., l.c.l	lb.	40	—
extract, liquid, No. 1, bbls., l.c.l	lb.	.19	—
Orthotolidin (see Tolidine Base)			
Ouabaine, USP bots	gram	3.00	4.00
Ox bile, extract, powdered, USP, 5-lb. lots or more	lb.	6.00	—
not extract, powdered, 5-lb. lots or more	lb.	4.35	—
Oxyquinolin sulphate, cns., 100-lb. lots, works	lb	4.73	5.00
smaller lots, works	lb.	5.28	5.33

P

Pancreas substance, assay 1:75 bots., 5-lb. lots or more	lb.	5.75	—
Pancreatin, USP bots	lb.	2.50	3.00
Panthenol, bots., works, frt. adjust.	kilo.	90.00	—
Papain, powd., African, dms	lb.	7.00	7.25
Ceylon, dms	lb.	5.75	6.00
Papaverine, natural or synthetic hydrochloride, USP, cns., 25 oz. to 100 oz., lots	oz.	5.00	—
smaller lots	oz.	5.05	5.20
Sulphate, cns	oz.	7.10	7.35
Para-anisidin, dms works	lb	.88	—
Paprika, Algerian, bgs	lb.	.27	.28
Czech, bgs	lb.	.34	Nom.
Moroccan, bgs.	lb.	.24	.25
Spanish, bgs	lb.	.42	.46
Para-acetylaminobenzaldehyde thiosemicarbazone, dms., frt. adjusted	lb.	17.50	21.00
Para-aminophenol dms., frt. alld	lb.	.97	.98
Parachloroaniline, dms., frt. alld., E. of Miss	lb.	.75	—
Parachlorobenzaldehyde, dms. works.	lb.	1.24	1.37
Parachloro-orthonitroaniline, dms., frt. alld	lb.	.73	.82
Parachlorophenol, dms., c.l., frt. equald	lb.	.34½	—
l.c.l., same basis	lb.	.35½	—

Paracresol, 98%, dms., c.l., dlvd	lb.	.49	—
l.c.l., dlvd.	lb.	.51	—
Methylether, cns	lb	2.15	2.50
Paracymene, dms., 50-gal. lots or more, works	gal.	2.50	—
smaller lots	gal	3.00	—
Paradibromobenzene, bgs. 500-lb. lots.	lb.	.55	—
Paradichlorobenzene, dms., c.l., works	lb.	.14½	—
l.c.l., same basis	lb.	.17	—
Paraffin, crude scale, white, 121°-123°F, ASTM, solid, c.l., ref'y	lb.	.053	—
fully refined, 122-124 ASTM, loose, c.l., rfy	lb.	.0745	—
125°-127°F, ASTM, loose, c.l., ref'y	lb.	.0745	—
130°-132°F, ASTM, loose, c.l., ref'y	lb.	.0755	—
132°-134°F, ASTM, loose, c.l., ref'y	lb.	.0755	—
135°-137°F, ASTM, loose, c.l., ref'y	lb.	.0755	—

Prices for paraffin in bags and ctns., c.l., 7-10c. per lb. higher; 1,000 to 9,999 lbs., 2.7c. per lb. higher and under 1,000 lbs., 3.7c. per lb higher

Paraformaldehyde, tech., 91%, powd., bgs., c.l., frt. alld.	lb.	.15½	—
l.c.l., frt. alld	lb.	.17	—
flake, bgs., c.l., frt. alld	lb.	.12	—
l.c.l., frt. alld	lb.	.13½	—
USP X, fib. dms., c.l.	lb.	.198	—
10,000-lb lots	lb	.198	—
1,000-lb. lots	lb.	.198	—
smaller lots	lb.	.208	—
Paraldehyde, tech., 98%, 55-gal. dms., c.l., works	lb.	.1385	.1650
l.c.l., works	lb.	.1485	.1750
tanks, works	lb.	.1200	.1500

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Pentaerythritols • Propyl Gallate • Resorcinol • Salicylates • Salicylic Acid • Streptomycin

Paranitroanilin—Phenol

Paranitroanilin, dms., c.l., works, frt. alld.	lb.	.48½-	—
l.c.l., works, frt. alld.	lb.	.51½-	—
Paranitrochlorobenzene, kgs., works,	lb.	.21	.22
Paranitrophenol, kgs., works, frt. equald.	lb.	.46	—
Paranitrotoluene, kgs., frt. alld.	lb.	.36	—
Paraphenetidin, dms., works	lb.	.90	—
Paraphenylenediamine, redistilled, dms., works.	lb.	2.00	—
tech., refd., dms., same basis.	lb.	1.10	1.35
Paraphenylphenol, bgs., c.l., works,	lb.	.37½-	—
l.c.l., same basis	lb.	.42	—
Para-tertiary-butylphenol, bgs., c.l., works.	lb.	.27½-	—
l.c.l., same basis	lb.	.28½-	—
Parathion, spray powder, 15%, dealers, tins	lb.	.53	.59
tech., dms., works	lb.	1.50	—
Para-tertiary-amylphenol, ctns., c.l., works.	lb.	.26	—
l.c.l., works	lb.	.27	—
tanks, works	lb.	.25	—
Paratoluenesulphonamide, flake, bbls., frt. alld	lb.	.64	.66
powd., bbls., works	lb.	.70	—
solid, bbls., frt. alld	lb.	.61	—
Paratoluidin, flake, bbls., frt. alld.	lb.	.64	.68
solid, bbls., frt. alld	lb.	.61	—
Pareira brava root, whole, bgs	lb.	.30	Nom.
ground, bxs	lb.	.40	Nom.
powder, bxs	lb.	.43	Nom.
Paris green, dealer, distributor, dms., c.l., works, frt. alld. en 96 lbs. or over	lb.	.35	.36
l.c.l., same basis	lb.	.39	.67
Passion flower herb, bls	lb.	.35	.38
Peanut meal, 45%, sacked, mills,	ton.	$0.00	$2.00
Pectin, citrous, NF, powd., bbls.	lb.	2.03	2.06
tech., powd., bbls.	lb.	1.50	—
Penicillin, crystalline, potassium, bulk, sterile, 1,000,000 units.		.10	.11
Procaine, bulk, 1,000,000 units		.11	.12
Sodium, bulk, sterile, 1,000,000 units.		.10	.11
Pennyroyal herb, bls	lb.	.45	.50
Pentachlorophenol, dms., c.l., works, frt. equald.	lb.	.21	—
l.c.l., same basis	lb.	.24	.26
truckload, 20,000 lbs. min. same basis	lb.	.21¼-	—
Pentaerythritol, tech., bgs., c.l., works.	lb.	.33	—
l.c.l., works	lb.	.34	.36

Di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).

Pentane, industrial, tanks, group 3,	gal.	.12	.13½
Pepper, black, Malabar, spot, bgs.	lb.	1.60	—
red, Carolina, long, bgs.	lb.	.42	.43
Gondar, bgs., Nov. steamer.	lb.	.25	—
Japanese, hontakas, bags, Nov.-Dec. Shipm't.	lb.	.49	.51
birdseyes, bgs., Dec.-Jan. ship't.	lb.	.60	.61
Louisiana longs, bgs.	lb.	.41	Nom.
Mississippi sports, bgs., source, new crop	lb.	.45	Nom.
Mombasa, bgs., Nov.-Dec. ship't.	lb.	.44	—
Nigerian, bgs., afloat	lb.	.39	.10
Turkish, bgs., shipm't.	lb.	.35	.35½
Unganda, bgs.	lb.	.36½-	—
Zanzibar, bgs., afloat	lb.	.43½-	—
white, bgs.	lb.	1.50	1.51
Peppermint leaves, USP, bls., dms.,	lb.	.65	.66
imported, bls.	lb.	1.05	Nom.
Pepsin, NF, 1:3,600, bulk	lb.	3.75	3.90
Perchloroethylene, dms., c.l., or truckloads, works	lb.	.11	—
dlvd. E.	lb.	.12	—
l.c.l., works	lb.	.11¾-	—
dlvd. E.	lb.	.12½-	—
tanks, works	lb.	.10½-	—
Peru balsam, dms.	lb.	1.25	2.00
Petrolatum, amber, dms., c.l., refy.	lb.	.04½-	.05½
l.c.l., dlvd.	lb.	.06½-	—
tanks, refy.	lb.	.03½-	.04½
cream, dms., c.l., refy.	lb.	.06	.07½
l.c.l., dlvd.	lb.	.06¼-	—
tanks, refy.	lb.	.04¼-	.05½
extra, amber, dms., c.l., refy.	lb.	.05	.05½
l.c.l., dlvd.	lb.	.06¾-	—
tanks, refy.	lb.	.03¾-	.04½
USP, white, lily, dms., c.l., refy.	lb.	.06¾-	.07½
l.c.l., dlvd.	lb.	.08¾-	—
tanks, refy.	lb.	.05½-	.06
soft, dms., c.l., refy.	lb.	.06¾-	.07¾
l.c.l., dlvd.	lb.	.08¼-	—
tanks, ref'y	lb.	.05¾-	—
snow, dms., c.l., refy.	lb.	.06¾-	.08
l.c.l., dlvd.	lb.	.09¼-	—
tanks, refy.	lb.	.05¾-	.06½
yellow, soft, dms., c.l., refy.	lb.	.05	.05½
l.c.l., dlvd.	lb.	.06¾-	—
tanks, ref'y	lb.	.05¾-	—
Petroleum, crude, bulk, at wells, California	bbl.	1.10	2.90
Illinois	bbl.	2.44	2.87
Kentucky	bbl.	2.42	2.83
Louisiana-Arkansas	bbl.	2.08	2.90
Montana	bbl.	1.28	2.775
Oklahoma-Kansas	bbl.	2.16	2.65
Pennsylvania lower field	bbl.	3.83	—
Upper field	bbl.	4.25	—
Petroleum, crude, bulk, at wells, Texas, East.	bbl.	2.65	—
Gulf coast	bbl.	2.38	2.95
North, North-Central	bbl.	2.23	2.65
Panhandle	bbl.	2.23	2.65
West	bbl.	2.33	2.65
Wyoming	bbl.	1.20	2.875
Fuel oil, bunker C, No. 6, California, heavy, tanks, refinery	bbl.	1.95	2.15
light, tanks, refinery	bbl.	2.00	2.25
eastern, tanks, Albany, N. Y.	bbls.	2.45	—
Baltimore, Md.	bbl.	2.10	—
Boston, Mass.	bbl.	2.15	—
Charleston, S. C.	bbl.	2.00	—
Jacksonville, Fla.	bbl.	1.97	—
N. Y. Harbor	bbl.	2.10	—
Norfolk, Va.	bbl.	2.05	—
Philadelphia, Pa.	bbl.	2.10	—
Portland, Me.	bbl.	2.15	—
Providence, R. I.	bbl.	2.12	—
Savannah, Ga.	bbl.	2.00	—
Diesel, tanks, refinery, California	gal.	.0825-	.115
Pennsylvania	gal.	.0925-	.1025
Furnace, tanks, refinery, Arkansas, No. 3	gal.	.08375-	—
No. 3	gal.	.08	—
N. Y. Harbor, No. 2.	gal.	.0975-	—
group 3, No. 1	gal.	.08125-	.0875
No. 1, straw	gal.	.09	.09375
No. 2, straw	gal.	.07625-	.08125
range	gal.	.0875-	—
Pennsylvania, western, No. 1,	ga.	.1075-	.1135
No. 2	gal.	.105	.112
No. 3	gal.	.105	.112
Lacquer diluent, California, 170-225 F., b.r., tanks, ex tax, f.o.b. Los Angeles	gal.	.167	.207
East coast, tanks, N. J. and N. Y. refinery	gal.	.18	—
group 3, benzol-type, tanks, refinery	gal.	.13125-	.13625
toluol-type, tanks, refinery	gal.	.12125-	.12375
Mineral spirits, regular, California, tanks, ex tax, f.o.b. San Francisco	gal.	.147	.157
East coast, tanks N.J., N.Y.	gal.	.16	—
Group 3, tanks	gal.	.10875-	—
tankwagon, Baltimore	gal.	.175	—
Boston	gal.	.18	—
Buffalo	gal.	.185	—
Newark	gal.	.17	—
New York	gal.	.165	.17
Philadelphia	gal.	.165	—
Pittsburgh	gal.	.19	—
Providence	gal.	.185	—
Rochester	gal.	.20	—
Syracuse	gal.	.21	—
Washington, D. C.	gal.	.193	—
specially refined, tanks, f.o.b. Watson, Calif	gal.	.228	—
f.o.b. Bordertown, Tex.,	gal.	.24	—
f.o.b. Houston, Texas,	gal.	.24	—
f.o.b. Wood River, Ill.	gal.	.2625	—
tank transport, f.o.b. Carteret, N. J.	gal.	.336	—
tankwagon, N. Y. and N. J.	gal.	.37	—
Naphtha, cleaners, East Coast, tanks, N. J. and N. Y. refinery	gal.	.16	—
Group 3 tanks	gal.	.11875-	—
tankwagon, Newark	gal.	.17	—
New York	gal.	.17	—
Philadelphia	gal.	.163	—
high flash, 140°, group 3, refinery, tanks	gal.	.134	.1429
high-solvency, 200-235 b.r., 37-38° C., mixed anilin pt., tanks, refinery or East Coast	gal.	.25½-	—
25-26° C., m.a.p., tanks, same basis	gal.	.24	.30½
270-370 b.r., 78-81° C., m.a.p., tanks, same basis	gal.	.29	—
40°C. m.a.p., tanks, same basis	gal.	.32	—
26-27° C., m.a.p., tanks, same basis	gal.	.24	.33
300-400 b.r., 28°-32° C., m.a.p., tanks, same basis	gal.	.24	.30½
340-410 b.r., 36° C., m.a.p., tanks, same basis	gal.	.24	—
32° C., m.a.p., tanks, same basis	gal.	.24	.30½
27° C., m.a.p., tanks, same basis	gal.	.34½-	—
350-425 b.r., 32° C., m.a.p., tanks same basis	gal.	.30½-	.51½
V.M.&P., tanks, ref'y, California, 245-360 b.r., Los Angeles,	gal.	.152	—
Portland, Ore.	gal.	.158	—
San Francisco	gal.	.157	—
Seattle, Wash.	gal.	.158	—
East coast, N. J., N. Y., tanks	gal.	.17	—
Group 3, tanks	gal.	.11875-	—
tankwagon, Boston	gal.	.195	—
Newark	gal.	.185	—
New York	gal.	.185	—
Philadelphia	gal.	.180	—
Pittsburgh	gal.	.20	—
Solvent, rubber, California, tanks, ex tax, San Francisco	gal.	.157	—
East coast, N. J., N. Y	gal.	.17	—
Group 3, tanks	gal.	.11875-	—
Stoddard, California, tankwagon, ex-tax, Los Angeles	gal.	.157	.197
East coast, N. J., N. Y., tanks	gal.	.16	—
Group 3, tanks	gal.	.11375-	—
Pennsylvania, western tanks,	gal.	.17	—
tankwagon, Boston	gal.	.18	—
Newark	gal.	.17	—
New York	gal.	.17	—
Philadelphia	gal.	.165	.17
Pittsburgh	gal.	.19	—
Syracuse	gal.	.21	—
Sulphonate, oil soluble, 70%, sulphonic content, non-ret. dms., c.l., works.	lb.	.2040-	—
l.c.l., works	lb.	.2065-	—
tanks, works	lb.	.1650-	—
60-62% sulphonic content, non-ret. dms., works	lb.	.175	.20
l.c.l., works	lb.	.185	.202
tanks, works	lb.	.145	.185
50-55% sulphonic content, non-ret. dms., works	lb.	.155	—
l.c.l., works	lb.	.165	—
tanks, works	lb.	.125	—
Phenobarbital, USP, dms., 100 lbs	lb.	4.50	4.70
Phenobarbital-sodium, USP, dms	lb.	4.50	4.70
Phenol, 90-92% (cresol, 8-10%), dms., c.l., frt. alld. E. of Rockies.	lb.	.19	—
l.c.l., same basis	lb.	.19¼-	—
tanks, same basis	lb.	.17¼-	—
82-84% (cresol 16-18%), dms., c.l., same basis	lb.	.19	—
l.c.l., same basis	lb.	.19¼-	—
tanks, same basis	lb.	.17¼-	—
39° or above, tar distilled, dms., c.l., same basis	lb.	.19½-	.20
l.c.l., same basis	lb.	.20¼-	.21¼
tanks, same basis	lb.	.17¼-	.19¼
USP, synthetic, dms., c.l., same basis	lb.	.21	—
l.c.l., same basis	lb.	.21¼-	—
tanks, same basis	lb.	.19¼-	—

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Secondary Butyl Acetate
Acetone
Methyl Ethyl Ketone
Ethyl Ether
Isopropyl Ether
Diisobutylene
Polypropylenes
Butadiene
Isoprene
Dicyclopentadiene
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Phenolphthalein, USP, or yellow bbls., dms., 2,000-lb. lots. lb. 1.10 - —
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Phenothiazin, NF, fib. dms., c.l., frt. adjusted lb. .50 - —
over 2,100 lbs., same basis lb.. .52 - —
less than 2,100 lbs., same basis, lb. .54 - —
Phenyl acetate, dms., 100 lb. tots, works lb. .50 - —
Salicylate (see Salol)
Phenylacetaldehyde solution, 50%, bots lb. 2.40 - 2.70
100%, bots lb. 4.00 - 4.65
Phenylacetamide 125-lb. dms., works, lb. 1.10 - —
smaller dms., works lb. 1.15 - 1.10
Phenylalamine dextro-laevo, dms., works lb. 27.00 - 37.50
Phenylcarbethoxy pyrazolone, 250-lb fib. dms., divd. E lb. 3.60 - —
less than 250-lb dms. divd. E lb. 4.00 - —
Phenyldiethanolamine, dms., c.l., frt. alld lb. .40 - —
l.c.l., frt. alld lb. .36 - .41
Phenylethanolamine, dms., c.l., works lb. .69½ - —
l.c.l., same basis lb. .70 - —
Phenylethyl acetate, dms lb. 1.20 - 1.57
Phenylethylphenyl acetate, bots lb. 4.05 - 4.50
Phenylhydrazin base, CP, bots lb. 3.00 - 3.07
Hydrochloride, commercial, kgs., works lb. 1.75 - —
CP, bots, works lb 5.12 - —
Phenylmethylpyrazolone, (see Methylphenylpyrazolone)
Phloroglucinol, comi., fib. dms., works lb. 6.40 - —
C.P., bots., fib. dms lb.17.00 - 17.25
tech., fib., dms works lb.10.45 - —
Phosgene, 150-lb cyls., works lb. .27½ - —
Phosphate defluorinated (see under D)
Phosphate rock Curacao, Atlantic ports ton.45.00 - —
Florida, land pebble, run-of-mine, washed, dried unground, bulk c.l., mines, 70%-68%, b.p.l., c.l., same basis long ton. 4.35 - 4.40
72%-70%, b.p.l., c.l., same basis long ton 5.00 - —
75%-74% b.p.l., c.l., same basis long ton. 6.00 - —
77%-78% b.p.l., c.l., same basis long ton. 7.00 - —
Finely ground, 65%, b.p.l., basis 30% P_2O_5 minimum, bulk, c.l., mines short ton. 4.92 - —
68% b.p.l., basis 31% P_2O_5 minimum mines short ton. 5.28 - —
70% b p.l., basis 32% P_2O_5 minimum, mines short ton. 5.83 - —
plus or minus usual bonus adjustment clause for oil and labor. Prices on entirely pebble 50c per long ton higher.
Tennessee, brown, run-of-mine, unground, 27-28% P_2O_5, c.l., mines long ton. 6.45 - —
30-29% P_2O_5 c.l., mines long ton. 7.21 - —
Phosphorus, red, amorphous cs., lb. .46 - .47
dms. lb. .44 - .45
yellow, cns. lb. .30 - .37
dms., c.l lb. .26 - —
Oxychloride, dms., c.l., works lb. .13 - .14
l.c.l., dms., works lb. .15 - .18
tankcars works 100 lbs. .11½ - —
Pentasulphide, solid, dms., c.l., works lb. .11½ - —
l.c.l., dms., works lb. .13 - .13½
Pentoxide, dms., c.l., works lb. .12 - —
l.c.l., works lb. .13 - .14
Sesquisulphide, tins, cs., works lb. .28 - .29
dms., export lb. .33½ - .36
Trichloride, dms., c.l., works lb. .13 - .14
l.c.l., works lb. .15 - .18
tankcars works 100 lbs. .11½ - —
Phthalic annydride, bgs., c.l., works, frt. equald lb. .22 - —
l.c.l., same basis lb. .23 - —
tanks, same basis lb. .21½ - —
Bbls., ½c. per pound higher
Phthalimide, 97%-98%, dms. works, frt. alld lb. .65 - —
Phthalylsulphacetamide, fiber dms., lb. 5.00 - 5.50
Pichi leaves, bgs lb. .16 - .17
Picoline (See Alpha, Beta and Gamma Picoline).
Pilocarpine hydrochloride, NF, bots oz. 5.25 - 6.22
Nitrate, USP, bots., vials oz. 5.10 - 6.20
Pimento, Guatemala, bgs lb. .20 - .20½
Jamaica, bgs. lb. .28 - .28½
Mexican, bgs lb. .15½ - .16
Pinetar, retort, dms., incl. c.l., works lb. .0511 - —
l.c.l., same basis lb. .0568 - —
whse. lb. .0678 - —
Pinkroot, bls lb. 2.50 - 2.55
Piperazine hexahydrate, bots., French Codex kilo. 8.00 - 8.50
Piperidine, 95%, dms. frt. equald, lb. 1.65 - 1.93
98% dms., same basis lb. 1.75 - 2.60
Piperonyl butoxide, dms., divd. E lb. 5.00 - 5.30
Cyclonene, dms., divd. E lb. 4.20 - 4.50
Pipsissawa nerb (see Prince's pine).
Pitch, burgundy, domestic, dms., me., c.l., l.c.l., works 100 lbs. 9.80 - 10.25
Coaltar, 140°-150° F., m.p., bbls., c.l., works ton.38.00 - 39.00
l.c.l., works ton.41.00 - —
Cottonseed, dms., works lb. .07½ - .08
Hardwood, paper bgs., c.l., works. lb. .02 - —
Linseed, dms lb. .06½ - .07
Petroleum (see Asphalt, petroleum).
Pine, dms., inc., l.c.l., works, South 100 lbs. 7.50 - —
Soybean, dms., works lb. .05½ - .06
Tall, dms., works lb. .05½ - .06
Plaster of Paris (see Gypsum).
Platinum metal, works oz.90.00 - 93.00
Pleurisy root, bls lb. .45 - .50
Podophyllum resin, NF, dms lb.11.00 - 11.20
Pokeroot, bls lb. .22 - .23
Polyoxyethylene sorbitan monostearate, dms., 20,000 lbs., works lb. .43 - —
10,000-20,000 lbs., works lb. .45 - —
smaller lots, works lb. .48 - .50
Tristearate, dms., 20,000 lbs., works lb. .43 - —
10,000-20,000 lbs., works lb. .45 - —
smaller lots, works lb. .48 - .50
Polystyrene, colors, special, bgs., over 20,000 lbs., frt. alld. lb. .35½ - .38
10,000-19,999 lbs., same basis lb. .36 - .36½
5,000-9,999 lbs., same basis, lb. .36½ - —
standard, bgs lb. .35½ - .36
crystals, heat-resistant, bgs., c.l., l.c.l lb. .34 - .34½
standard, bgs., c.l., l.c.l lb. .32½ - .33
Polystyrene in non-returnable fiber dms., ½c. per lb. higher.
Pomegranate root, bark, bgs lb. .60 - .65
Poppy flowers, bgs lb. 1.20 - 1.25
Seed, Argentine, bgs lb. .13 Nom.
Dutch, bgs lb. .16¾ - .17
Polish, bgs lb. .15¾ - .16
Turkish, bgs lb. .13½ - .14

Potash, caustic, low-chloride, flake, 85% basis 90% KOH, dms., c.l., works 100 lbs.10.00 - —
l.c.l., works 100 lbs.10.75 - —
liquid, 45%, dms., c.l., works, 100 lbs. 4.625 - —
l.c.l., works 100 lbs. 5.125 - —
tanks, works 100 lbs. 4.30 - —
solid, 90%, dms., c.l., works, 100 lbs. 9.40 - —
l.c.l., works 100 lbs.10.15 - —
regular, flake, 88-92%, dms., c.l., works 100 lbs. 8.50 - —
l.c.l., works 100 lbs. 9.25 - —
liquid, 45% basis, dms., c.l., works 100 lbs. 3.875 - —
l.c.l. same basis 100 lbs. 4.65 - —
tanks, same basis 100 lbs. 3.55 - —
solid, 88-92% dms., c.l., works 100 lbs. 7.90 - —
l.c.l., same basis, works 100 lbs. 8.65 - —
Potassium abietate, dms., works lb. .25 - .28
Acetate, NF, dms lb. .31 - .36
Bicarbonate, USP, gran., dms lb. .22 - —
powd., dms. lb. .24 - —
Bichromate, bgs., c.l., works lb. .14½ - —
l.c.l., same basis lb. .14¾ - .15½
Potassium bichromate in drums ¾c. higher.
Bitartrate (see Cream of tartar).
Bromate, bbls., 1,000 lbs. or more, lb. .50 - .52
25-200-lb. lots lb. .55 - .57
Bromide, USP, gran., bbls., kgs. lb. .34 - —
Carbonate, tech., calcined, bbls., c.l., works 100 lbs. 8.25 - —
l.c.l., same basis 100 lbs. 9.30 - —
hydrated, 83-85%, bbls., c.l., works 100 lbs. 6.75 - —
l.c.l., works 100 lbs. 7.50 - —
USP, gran., bbls., dms lb. .16½ - .18
powd., bbls., dms lb. .21 - .23

Potassium chlorate, cryst., dms., c.l., works lb. .09¾ - —
l.c.l. works lb. .10 - .11
powd., dms., c.l., works lb. .10¼ - —
l.c.l., works lb. .10¾ - .11¾
export, dms., 1 to 10 tons, works lb. .13 - .13¾
NF, gran., dms lb. .32 - .33
Chloride USP, cryst., dms lb. .21 - .23
gran., dms lb. .15 - .17
powd. dms lb. .24 - .26
Chromate, tech., bgs lb. .32 - .36
Citrate, USP, gran. dms lb. .37½ - .38½
powder dms lb. .40½ - .41½
Cyanide dms, over 500 lbs., works, lb. .55 - —
under 500 lbs., works lb. .57 - —
Fluoborate, fib. dms., c.l., works, lb. .26 - —
l.c.l., works lb. .27 - —
Fluoride, dms., works lb. .24 - —
Gluconate dms lb. .75 - .79
Glycerophosphate, 75% solution, cbys lb. 2.15 - 2.25
Guaiacolsulphonate, NF, dms lb. 2.10 - 2.30
Hydroxide, tech (see Potash caustic).
USP, pellets 100 lb dms 1 to 100 dms lb. .28½ - .33
Hypophosphite, NF, ton lots or less, 6b. dms lb. 1.00 - 1.03
Iodide, dms lb. 2.15 - 2.20
Manure salt, 22% K_2O, bulk, mines unit-ton. .21 - —
Metabisulphite gran., dms lb. .20 - .21
powd., dms. lb. .25 - —
Muriate, dom., 50-60% K_2O, bulk, Carlsbad, N. M. unit-ton. .42 - .43
Trona, Cal unit-ton. .53 - —
50-51% K_2O, paper bgs., Carlsbad, N. M ton.25.73 - —

Potassium nitrate (see Saltpeter).
Oxalate, neutral, tech., fine gran., bbls., rms. lb. .30 - .32
Pentoborate, gran., bgs., c.l., works ton.184.00 - —
ton lots, bbls. ex whse ton.261.00 - —
less ton lots, bbls. ex whse ton.266.00 - —
Powdered Potassium pentoborate, $10.25 per ton higher
Perchlorate, dms., c.l. works lb. .14 - —
l.c.l., works lb. 14½ - .15½
Permanganate, tech., dms., works, lb. .22½ - .23½
USP dms. works lb. .24¾ - .30¼
Persulphate, dms., c.l., works lb. .18 - .19
l.c.l., works lb. .20 - .22
Phosphate tetrabasic, bbls. works, lb. .16½ - .18½
Prussiate, red, kgs lb. .60 - .63
yellow, dms., ton lots lb. .22½ - —
smaller quantities lb. .23 - —
kegs lb. .28 - —
Silicate, glass, bgs., c.l., works 100 lbs.14.70 - —
l.c.l. 100 lbs.15.20 - —
solution, clarified, 29° Be, 1 to 2.5 dms., c.l., works 100 lbs. 5.50 - 5.65
l.c.l., 5 dms. or more, works 100 lbs. 6.25 - 6.65
tanks, works 100 lbs. 5.15 - 5.30
tech., 29° Be, 11:2.5, dms., c.l., works 100 lbs. 4.85 - —
l.c.l., dms., works 100 lbs. 5.35 - —
tanks, works 100 lbs. 4.50 - —
32.5° Be., dms., c.l., works, 100 lbs. 4.95 - —
l.c.l. works 100 lbs. 5.45 - —
tanks, works 100 lbs. 4.60 - —

Phenolphthalein—Potassium Silicate, Solution, Tech., 32.5° Be.

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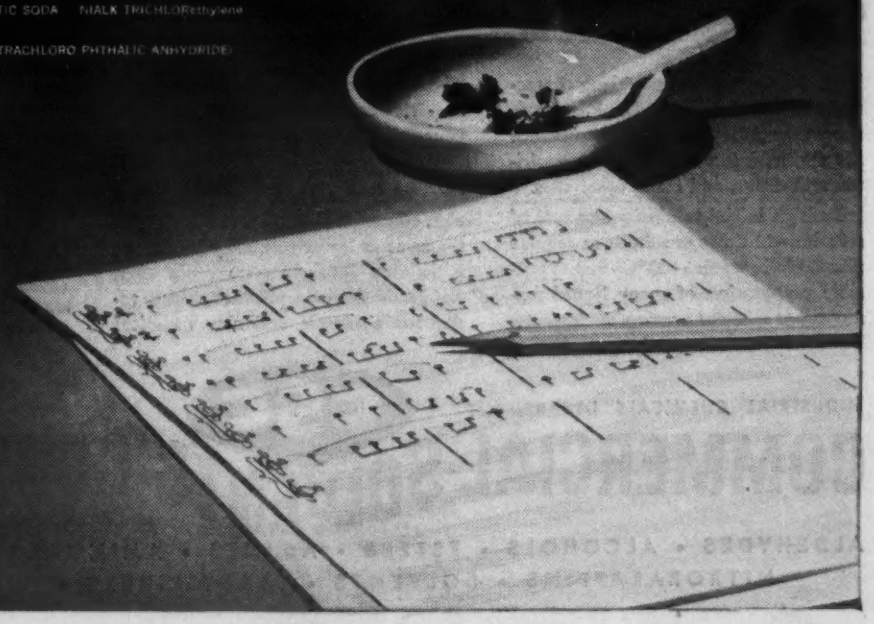

Potassium Silicate, Solution, Tech., 40.5° Be.—Red Toluidin Toner

Potassium silicate, solution, tech., 40.5° Be., 1 to 2.0, dms., c.l., works	100 lbs.	5.43	- 6.70
l.c.l., 5 dms., works	100 lbs.	5.93	- 7.85
tanks, works	100 lbs.	5.10	- 6.35
Silicofluoride, bbls., works	lb.	.09½	.10
Stannate, dms., frt. alld. E.	lb.	.740	- .796
Sulphate, agricultural, 90-95% K_2SO_4, bulk, works, basis 90%	ton.	36.25	- —
NF VII, cryst., dms.	lb.	.31	- .33
gran., dms.	lb.	.18½	- —
powder, dms.	lb.	.19	- —
Sulphocyanide, cryst., NF (see Potassium thiocyanate)			
Thiocyanate, NF, cryst., dms.	lb.	.82	- 1.06
tech., works	lb.	.77	- .79
Titanate, ctns., c.l., works	lb.	.12½	- —
5-ton lots, works	lb.	.12¾	- —
1-ton lot or less, works	lb.	.13	- —
Potassium-magnesium sulphate bulk, works basis 40% K_2SO_4, 18% MgO	ton.	16.00	- —
Potassium-sodium tartrate (see Rochelle salt).			
Potassium-titanium fluoride, fib. dms., works	lb.	.35	- .38
Oxalate, bbls., dms.	lb.	.85	- .95
Potassium-zirconium fluoride, fib. dms., c.l., works	lb.	.50	- —
l.c.l., works	lb.	.52½	- .55
Pregnenolone, bots.	gm.	1.50	- —
Acetate bots.	gm.	1.25	- —
Prickly ash bark, bls.	lb.	.55	Nom.
Berries, bgs.	lb.	.70	- .75
Prince's pine herb, bls.	lb.	.60	- .61
Procaine hydrochloride, USP, gms., frt. alld.	lb.	3.10	- 3.40
Progesterone, USP, 100 gms., bots., gm.		1.75	- —
Propane, commercial grade, tanks, group 3, gal.		.04	- —
Propionaldehyde, dms., 5,000 lbs. or more, custom contract	lb.	.60	- —
Propyl acetate, normal, dms., c.l., dlvd.	lb.	.125	- —
l.c.l., dlvd.	lb.	.135	- —
tanks, dlvd.	lb.	.1075-	—
Aldehyde (see Propionaldehyde).			
Gallate, dms., 2,000 to 100 lb. lots, works	lb.	3.90	- 4.40
Parahydroxybenzoate, USP, dms.	lb.	2.20	- 2.40
Propylene dichloride, dms., c.l., dlvd. E	lb.	.0645-	.095
l.c.l., same basis	lb.	.0950-	.1050
tanks, same basis	lb.	.07	- .08
Oxide, dms., c.l., dlvd. E	lb.	.19½-	.20½
l.c.l., dlvd. E	lb.	.20½-	.21½
tanks, dlvd. E	lb.	.17½-	.18½
Propyleneglycol, industrial, dms., c.l., dlvd. E	lb.	.19¼-	.21¼
l.c.l., same basis	lb.	.20¼-	.22¼
tanks, same basis	lb.	.17½-	.18½
USP, dms., c.l., dlvd. E	lb.	.20¼-	.21½
l.c.l., same basis	lb.	.21¼-	.22¼
tanks, same basis	lb.	.18½-	.19½
Methylether, dms., c.l., dlvd. E	lb.	.20	- —
l.c.l., same basis	lb.	.21	- —
tanks, same basis	lb.	.18½-	—
Propylthiouracil, bots., 50-kilo lots or more	kilo.	55.00	- —
smaller lots	kilo.	55.10	-55.30
Psyllium seed, black, bgs.	lb.	.27	- .30
blonde, bgs.	lb.	.19	- .20
husks, bgs.	lb.	.50	- .51
Pulsatilla herb, bls.	lb.	.52	- .53
Pumice, com. grd., coarse to fine, 0½, 1, 1½, 2, 3 bgs., ton lots.	lb.	.03½-	.04¼
smaller, lots	lb.	.03½-	.04½
Italian, silk-screen, coarse, bags, ton lots	lb.	.06½-	—
fine, bgs., ton lots	lb.	.04	- —
sun dried, coarse, bgs ton lots	lb.	.02½-	.04
fine, bgs., ton lots	lb.	.02½-	.04
Pumice in bbls. is ½c. per lb. higher.			
Pumpkin seed, bgs.	lb.	.18	- .20
Pyrethrin, synthetic (see Allethrin).			
Pyrethrum flowers, fine-grd., 0.9% pyrethrins bbls. works	lb.	.50	- —
powder, 1.3% pyrethrins, bbls., works	lb.	.71½-	—
liquid (20 to 1) basis 2 grams pyrethrins per 100cc. odorless basis, bbls., works	gal.	9.75	-10.50
(30 to 1) basis 3 grams pyrethrins per 100 cc. odorless base, bbls., works	gal.	13.75	- —
oleoresin dewaxed 20%, for aerosol bombs, dms., works	lb.	11.00	-12.00
Pyridin, denaturing, dms., c.l., works and frt. equald	gal.	2.82	- —
l.c.l., same basis	gal.	2.85	- —
refd., 2°, non-ret. dms., c.l., same basis	lb.	.89½-	1.04½
l.c.l., same basis	lb.	.90	- 1.05
Pyridoxine hydrochloride, 100-gram bots.	gram.	.53	- —
Pyrites	long-ton.	No prices.	
Pyrocatechol (see Catechol).			
Pyrogallol, NF	lb.	3.28	- 3.43
Pyrophyllite, insecticide grade, 200 mesh, bgs., c.l., mines	ton.	13.00	-13.50
No. 3, 200 mesh, bulk, c.l., mines	ton.	11.00	- —
rubber grade, 140 mesh, bgs., c.l., mines	ton.	11.50	-12.00
standard, 200 mesh, bulk, c.l., mines	ton.	12.50	- —
230 mesh, bulk, c.l., mines	ton.	13.50	- —
325 mesh, bulk, c.l., mines	ton.	16.75	- —
Standard and No. 3 pyrophyllite in paper bgs. $3 to $3.50 per ton extra.			
Pyroxylin, USP, bots.	lb.	0.50	- —
Scrap, opaque, amber, cs., works	lb.	.15	- —
black, cs., works	lb.	.12	- —
mixed, mottled, cs., works	lb.	.11	- —
white, china, ivory, cs., works	lb.	.12	- —
dense, cs., works	lb.	.12	- —
translucent, pastels, cs., works	lb.	.14	- —
transparent, colorless, cs., works	lb.	.20	- —
colors, cs., works	lb.	.14	- —
shavings, opaque, amber, cs., works	lb.	.12	- —
mixed, colors, cs., works	lb.	.12	- —

Q

Quebracho extract, clarified, grd., 70% tannin, bgs., c.l.	lb.	.16½-	.16¾
liquid, 35% tannin, bbls., works, tanks, same basis	lb.	.08¼-	—
solid, clarif., 64% tannin, bgs., c.l., exdock, duty extra	lb.	.12½-	—
ordinary, 63% tannin, bgs., c.l., same basis	lb.	.11 31/64	—
Quebracho extract prices are based on $20.40 freight and $1 insurance per long ton.			
Queen of the meadow root, bgs	lb.	.25	- .28
Quercitron extract, crystals, No. 1, bbls., l.c.l.	lb.	.40	- —
liquid, No. 1, bbls., l.c.l.	lb.	.19	- —
Quicksilver, flasks (76 lbs. net)	flask.	211.00	-213.00
Quince seed, bgs.	lb.	.80	- 1.50
Quinidine, NF, V cryst., cns., 100-oz. lots	oz.	1.90	- —
powd., precip., cns., 100-oz. lots	oz.	1.85	- —
Sulphate, USP, cns., 100-oz. lots	oz.	1.00	- —
Quinine, NF, cns., 100-oz. lots	oz.	.70	- —
Bisulphate, USP cns., 100-oz. lots	oz.	.51	- —
Dihydrochloride, USP, cns.	oz.	.70	- .72
Ethylcarbonate, NF, cns., 100-oz. lots	oz.	.73	- —
Hydrobromide, NF, cns., 50-oz. cns.	oz.	.63	- —
Hydrochloride, USP, cns., 100-oz. lots	oz.	.63	- —
Phosphate, NF, cns., 100-oz. lots	oz.	.76	- —
Salicylate, NF, cns., 100-oz. lots	oz.	.66	- —
Sulphate, USP, cns., 100-oz. lots	oz.	.56½	- —
Quinine and Urea hydrochloride, NF, cans	oz.	.68	- —
Quinolin, ret. dms., c.l., frt. equald.	lb.	.50¾-	—
l.c.l., same basis	lb.	.51¾-	—
tanks, same basis	lb.	.50	- —

R

R salt, paste, basis, 100%, dms., frt. alld.	lb.	.53	- —
powd., basis, 100%, frt. alld.	lb.	.58	- —
Raspberries, dried, bbls.	lb.	1.20	- 1.25
Red, BON, arylid, deep shades, bbls.	lb.	3.60	- —
light, medium shades, bbls.	lb.	2.75	- —
maroons, pure, bbls.	lb.	1.75	- —
resinated, bbls.	lb.	1.50	- —
Cadmium, CP, dark shade, bbls., frt. alld. E. of Rockies	lb.	4.30	- —
light shade, same basis	lb.	4.00	- —
medium shade, bbls., same basis	lb.	4.25	- —
medium-light shade, bbls., same basis	lb.	4.05	- —
orange shade, bbls., same basis	lb.	NP	- —
lithopone, deep shade, bbls., same basis	lb.	1.76	- —
light shade, bbls., same basis	lb.	1.61	- —
maroon shade, bbls., same basis	lb.	1.85	- —
medium shade, bbls., same basis	lb.	1.71	- —
medium-light shade, bbls., same basis	lb.	1.66	- —
orange-red shade, bbls., same basis	lb.	1.57	- —
Red cadmium lithopone all shades, in smaller pkgs., 5c. per lb. higher; all prices are 1c. per lb higher ex whse. Los Angeles and San Francisco.			
Carmine No. 40 (see Carmine).			
Crocus martis (see Red, maroon iron oxide).			
Dyes (see Dyes, coaltar).			
Eosin toner, bbls., works	lb.	1.60	- —
Indian, dom., pure, bgs., Bethlehem, Easton, E. St. Louis, N. Y.	lb.	.12½-	—
Iron oxide, pure, 98% ferric oxide, bgs., c.l., works	lb.	.12¼-	—
l.c.l., works	lb.	.12½-	—
natural 75%-85% ferric oxide, bgs., l.c.l., Bethlehem, Pa.; Copley, O.; Easton, Pa.; E. St. Louis	lb.	.05½-	—
Lake C, toner, alizarin, bbls., works	lb.	1.10	- 1.20
Lithol, toner, bbls., works	lb.	.76	- —
rubin, toner, pure bbls., works	lb.	1.50	- —
resinated, bbls., works	lb.	1.40	- —
Virginia-type, bbls., works	lb.	1.46	- —
Maroon toner, BON, arylid, dlvd	lb.	3.60	- 3.90
Cadmium, deep, bbls., works	lb.	1.20	- —
regular, bbls., works	lb.	1.10	- —
MNPT, toner, kgs., works	lb.	3.60	- —
Maroons in smaller pkgs 5c. per lb. higher.			
Mercury oxide, tech., bbls., 10,000 lbs, works	lb.	4.22	- —
smaller lots, works	lb.	4.34	- —
Metallic, bbls., c.l., works	lb.	.02½-	—
l.c.l., works	lb.	.02¾-	—
Oxide (see Red, iron oxide)			
Persian gulf, bgs., c.l., works	lb.	.06¼-	—
l.c.l., works	lb.	.07	- —
Para toner, bbls.	lb.	.83	- —
Chlorinated, kgs.	lb.	1.10	- 1.15
Phloxin toner (see Red eosin toner).			
Rhodamine, molybdated, PMA., kegs	lb.	4.90	- —
tungstated, PTMA, works, kegs	lb.	6.35	- —
Spanish, oxide, bbls., c.l., ex dock	lb.	.05¾-	—
l.c.l., ex dock	lb.	.06	- —
ex whse., New York	lb.	.06½-	—
Toluidin toner, deep shades, kgs., works	lb.	1.40	- —
light shades, kgs., works	lb.	1.40	- —

available at the same price as standard products

With its outstanding solubility characteristics, Riboflavin R.S., U.S.P., in three short years, has found wide acceptance for elixirs, injectable solutions, multivitamin drops, and many other uses.

Its high initial solubility and rate of solution—12 times as soluble as regular riboflavin in water at 25°C—makes possible preparation of many liquid formulations *without heating*. Such results eliminate the danger of injuring heat-sensitive compounds, greatly reduce your production costs.

Riboflavin R.S. is a pure crystalline form of riboflavin. It contains no foreign odors. Its biological availability is the same as lower solubility forms, yet Riboflavin R.S. costs no more than standard-solubility products. Send today for a sample and new technical data sheet. Write Industrial Chemicals Department, Commercial Solvents Corporation, 260 Madison Ave., New York 16, N. Y.

• • •

For the manufacturer of capsules and dry preparations, specify Riboflavin U. S. P. (standard solubility). Both R. S. and Standard forms available in 100, 1,000 or 5000-gram containers.

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Red, turkey, bbls., works	lb.	.14½	—
Tuscan, bbls., frt. equald	lb.	.24½	.25
Venetian, 15%, bgs., works	lb.	.0350	.0375
20%, bgs., works	lb.	.04	—
25%, bgs., works	lb.	.0450	—
30%, bgs., works	lb.	.0475	—
35%, bgs., works	lb.	.05	—
40%, bgs., works	lb.	.0525	—
Vermilion, Amer., bbls	lb.	.32	—
Quicksilver, ctns	lb.	3.81	—
Watchung-type, bbls	lb.	1.95	—
Red KB base (see Chloro (4)-2-toluidine).			
Red precipitate, NF, powd., fib. dms	lb.	4.37	4.41
Red saunders, NF, powd., bbls	lb.	.35	—
Rennin, NF, powder	lb.	6.25	—
Resorcinol, tech. grade, dms., c.l., works	lb.	.82½	—
t.c.l., works	lb.	.83½	—
USP, cryst., dms., works	lb.	2.75	—
powd., dms., works	lb.	2.95	—
Monoacetate, NF, dms	lb.	3.25	3.45
Rhatany root, bgs	lb.	.15	.16
Rhodinol, 5-lb. cans	lb.	40.00	-56.00
Rhubarb root, China, whole, cs	lb.	.85	.86
powd., bbls	lb.	.95	.96
India, whole, bgs	lb.	.35	.36
powdered, bbls	lb.	.40	.44
Riboflavin, USP, bots., dlvd	kilo.	125.00	—
readily soluble, bots., dlvd	kilo.	125.00	—
Rice bran, concentrate, dms., Cedartown, Ga	lb.	.79	—
Rochelle salt, USP, gran., powd., dms., c.l.	lb.	.32½	—
5,000-lb. lots, dms., c.l	lb.	.32½	—
smaller lots	lb.	.33½	.38½
Rose flowers, pale, bls	lb.	.45	Nom.
Rosemary flowers, bls	lb.	.95	.96
Leaves, French, bls	lb.	.10½	.11
Portuguese, bls	lb.	.07	.07½
Spanish, bls	lb.	.09	.09½
Rosin, gum and wood (see Naval Stores, Protective Coatings market)			
Rotenone, CP, bbls., works	lb.	20.00	—
tech., bbls, works	lb.	16.50	—
Rottenstone (see Tripoli)			
Rue herb, bls	lb	.35	.40
Rutin, NF, 25 kilo lots, fib. dms	kilo.	27.50	-40.00
10 to 25-kilo lots, fib. dms	kilo.	28.50	-40.00
1 to 10-kilo lots, fib. dms	kilo.	30.00	-40.00
Ryania, 100% powd., bgs., works	lb.	.20	—

S

Sabadilla seed, powd., bbls	lb.	.70	—
activated, ground with lime, bbls	lb.	.41	.42
Saccharin, USP, gran., soluble, dms., 1000-lb lots	lb.	1.60	—
smaller lots	lb	1.70	1.80
powd., soluble, insoluble, dms., 1000-lb. lots	lb.	1.63	—
smaller lots	lb.	1.75	1.95
Saffower, Egyptian, ols	lb.	.60	.65
Saffron, Mexican, bls	lb.	.95	.96
Spanish, USP, tins	lb.	22.00	-23.00
Safrol dms	lb.	.72	1.35
Sage, Cretan, bls	lb.	.12	.12½
Cyprus, bls	lb.	.09	.09½
Dalmatian, bls	lb.	.46	.47
Greek, bls	lb.	.10½	.12½
Italian, Officinalis, bls	lb.	.20	.21
Spanish, stemless, bls	lb.	.13½	.14
Syrian, bls	lb.	.10½	.12½
Turkish, bls	lb.	.12	.12½
Sago flour, raw, bgs	lb.	.07¼	.07¾
refined, bgs	lb.	.08½	.09
Sal soda (see Soda sal).			
Salol, NF, gran., bbls., kgs	lb.	1.05	—
fib. dms	lb.	1.07	1.08
Powdered salol, 25c. higher.			
Salt, rock, paper bgs., c.l., works, 100 lbs.		.53	—
t.c.l.	100	lbs. 1.09	—
Table, vacuum, common, fine, paper bgs. c.l., works	100	lbs. .77	—
t.c.l., works	100	lbs. 1.12½	—
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis	ton.	17.00	—
Saltpeter, cryst., bbls., 10-ton lots,	100	lbs. 14.40	—
smaller lots	100	lbs 14.65	-14.90
powd., bbls., 20-ton lots	100	lbs. 10.75	—
smaller lots	100	lbs. 12.00	-12.50
gran., bbls., 20-ton lots	100	lbs. 9.75	—
smaller lots	100	lbs. 11.10	-11.50
NF, gran., dms	lb.	.09¼	.17¼
Saltpeter in bags, 50c. per 100 lbs. less; in kegs, $1 more.			
Sandalwood chips, East Indies, bgs.,	lb.	.65	.66
powd., dms	lb.	.75	.76
Sanguinarine nitrate, bots	oz.	4.75	5.50
Santonin, NF, dom., dms., cryst., powd., cns	lb.	110.00	-120.00
imported, cryst., powd., cns	lb.	112.50	—
Saponin, No. 1, 100-lb. dm	lb.	2.75	—
Sarsaparilla root, dom., bls	lb.	.45	.50
Honduras, bls	lb.	.38	.40
Mexican, bls	lb.	.22	.25
Sassafras bark, ord., bls	lb.	.44	.45
select, bls	lb.	.55	.56
Savory, French, bls	lb.	.24	—
Spanish, bls	lb.	.14	.18
Saw palmetto berries, bgs	lb.	.32	.38
Scammony resin, lump, cns	lb.	1.95	2.20
powd., cns	lb.	2.05	2.30
Schaeffers salt, paste, dms., frt. alld.	lb.	.77	—
powder, bgs., frt. alld	lb	.80	—
Scopolamine hydrobromide, bots.	oz.	14.00	-15.00
Hydrochloride USP bots	oz.	51.00	—
Seidlitz mixture, bbls., 5,000 lbs	lb.	.30½	—
smaller lots	lb.	.31	.32
Selenium, powd., dms., dlvd	lb.	3.25	—
Senega root, bls	lb.	2.35	2.40
Senna leaf, Alex., half-leaf, bls	lb.	.22	.23
sifting, bgs	lb.	.18	.19
Tinnevelly, No. 1, bls	lb.	.20	.21
No. 2, bls	lb.	.18	.19
No. 3, bls	lb.	.14	.15
powdered, bls., bxs	lb.	.17	.18
Pods, bls	lb.	.35	—
Serpentaria root, bls	lb.	5.00	5.10
Sesame seed, Nicaragua, hulled, bgs	lb.	.21½	.23
natural, bgs	lb.	.13¾	.14
Turkish, bgs	lb.	.15	.15½
Shellac, bleached, bonedry, bgs., 1,500-lb. lots	lb.	.44	—
bbls., 1,500-lb. lots	lb.	.45	—
kgs., 1,500-lb. lots	lb.	.47	—
refined, bgs., 1,500-lb. lots	lb.	.54	—
bbls., 1,500-lb. lots	lb.	.55	—
kgs., 1,500-lb. lots	lb.	.57	—
Bonedry shellac prices for less than 1,500-lb lots, 1c. per lb higher for all packages.			
Lemon, No. 1, bgs	lb.	.32	.34
No. 2, bgs	lb.	.29	.32
Superfine, bgs., 10-bg. lots	lb.	.28	.30
TN, bgs., 10-bg. lots	lb.	.25	.29
Shellac in 1 to 9 bgs., 1c. more.			
Shingle stain oil (see Oil, shingle stain).			
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., ill., works	ton.	25.00	—
t.c.l., works	ton.	30.00	-40.00
hard-quartz, 99½% 325 mesh, bgs., c.l., works	ton.	20.00	—
t.c.l., works	ton.	25.00	-30.00
140 mesh, bgs., c.l., works	ton.	15.00	—
t.c.l., works	ton.	20.00	—
Silicon tetrachloride, tech., dms., c.l., works	lb.	.16	—
t.c.l., works	lb.	.20	.28½
Silver bullion, ingots, ex	oz.	.83¼	—
Cyanide, 3b. dms., 2,500-oz. lots	oz.	.75½	—
1,000-oz. lots	oz.	.76½	—
500-oz. lots	oz.	.76½	—
100-oz. lots	oz.	.76½	—
Nitrate, CP, cryst., bots., 2,500-oz. lots	oz.	.53½	—
1,000-oz. lots	oz.	.54½	—
500-oz. lots	oz.	.55½	—
250-oz. lots	oz.	.55½	—
USP granular silver nitrate, 4c. per oz. higher.			
Proteinate, mild, USP, bots., dms., 1,000-oz. lots	oz.	1.05	—
strong, NF, bots., dms., 1,000-oz. lots	oz.	1.00	—
Simaruba bark, bls	lb.	.90	Nom.
Skullcap herb, Eastern, bls	lb.	.50	.65
Western, bls	lb.	.30	.35
Skunk cabbage root, bls	lb.	.60	—
Slate flour, bgs., c.l., works	ton.	7.55	-13.00
t.c.l., ex whse	ton.	19.85	-27.35
Sloe berries, bgs	lb.	.24	.28
Smalt, black, ctns	lb.	.15	—
Blue, ctns	lb.	.12	—
Snakeroot, Canada bls	lb.	.75	.80
Soapbark, bls	lb.	.28	.30
crushed, bls., bbls	lb.	.33	.34
powd., bbls	lb.	.35	.37
Soda ash, dense, 58% paper bgs., c.l., works	100	lbs. 1.60	—
t.c.l., stock points	100	lbs. 2.85	4.62
bbls., c.l., works	100	lbs. 2.15	—
t.c.l., stock points	100	lbs. 3.35	4.13
bulk, c.l., works	100	lbs. 1.30	—
light, 58%, paper bgs., c.l., works	100	lbs. 1.50	—
t.c.l., stock points	100	lbs. 2.75	4.52
bbls., c.l., works	100	lbs. 2.05	—
t.c.l., stock points	100	lbs. 3.25	5.02
bulk, c.l., works	100	lbs. 1.20	—
Soda, caustic, flake, powd., 76%, c.l., works	100	lbs. 3.75	—
t.c.l. stock points	100	lbs. 4.95	6.77
liquid, 50%, sellers' tanks, works, dry basis	100	lbs. 2.55	—
50%, rayon-type tanks, works, dry basis	100	lbs. 2.65	—
70% sellers' tanks, works, dry basis	100	lbs. 2.63	—
rayon type, tanks, works, dry basis	100	lbs. 2.75	—
solid, 76%, dms., c.l., works	100	lbs. 3.35	—
t.c.l. stock points	100	lbs. 4.55	5.05
Sal, bgs., c.l., works	100	lbs. 1.40	—
t.c.l., works	100	lbs. 1.70	—
Soda-lime, USP, dms	lb.	.23	.25
Sodium acetate, anhyd., bgs., c.l., works	lb.	.12	—
t.c.l., dms	lb.	.12¾	—
NF, 60%, dms., works	lb.	.08½	—
Alginate, refined, water-soluble, bbls., works	lb.	.83	—
semi-refined, bbls., works	lb.	.54	—
NF, white, powd., dms., ton lots, works	lb.	1.40	—
smaller lots	lb.	1.55	1.65
Antimoniate, bbls., c.l., dlvd. E.	lb.	.30	—
t.c.l., dlvd.	lb.	.31½	—
Arsenate, dms., c.l., works	lb.	.12½	—
t.c.l., dms., works	lb.	.13¾	.14¼
Arsenite, dms., c.l., works	lb.	.13½	—
t.c.l., dms works	lb.	.14¼	.15¼
solution, dms., works	gal.	.70	1.10
Benzoate, tech., bbls., dms., 100 lbs or more	lb.	.37½	.39
USP, bbls., dms., 100 lbs. or more	lb.	.44½	.48
Sodium bicarbonate, USP, gran., bgs., c.l., works	100	lbs. 2.50	—
t.c.l. works	100	lbs 3.15	—
powd., bgs., c.l., works	100	lbs 2.10	—
t.c.l., works	100	lbs 2.75	—
Bichromate, bgs., c.l., works	lb.	.11	—
t.c.l., same basis	lb.	.11¼	.12
Bifluoride, bbls., c.l., works, frt. equald	lb.	.1375	—
t.c.l., same basis	lb.	.1415	—
Bisulphate, bulk, c.l., works.	100	lbs. 2.00	—
dms., c.l., works	100	lbs 2.65	2.85
t.c.l., works	100	lbs 3.05	3.65
Bisulphite, anhyd., bgs., c.l., works.	100	lbs. 4.05	—
t.c.l., works	100	lbs. 4.30	—
solut. 35°, bbls., c.l., works.	100	lbs 1.40	—
t.c.l., works	100	lbs 1.65	—
Borate (see Borax).			
Bromide, USP, bbls., kgs., works,	lb.	.34	.35
Cacodylate, NF, jars, dms	lb.	8.52	—
Carbonate, anhydrous (see Soda ash). crystalline, decahydrated (see Soda sal). monohydrated, bgs., c.l., works	100	lbs. 2.65	—
t.c.l., works	100	lbs. 3.05	—
Chlorate, cryst., dms., c.l., works.	lb.	.08¼	—
t.c.l., works	lb.	.08¾	.09¼
Chloride, tech (see Salt). USP, dms	lb	65	12
Chlorite, tech, dms., works	lb.	.58	.73
Chloroacetate, tech., dms., c.l., works	lb.	.24	—
t.c.l., works	lb.	.25	.26
Chromate, dms., c.l., works	lb.	.12¾	—
t.c.l. same basis	lb.	.13	.13¼

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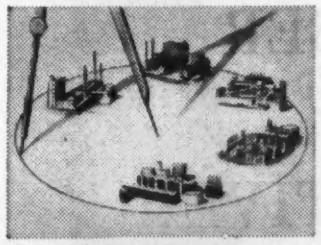

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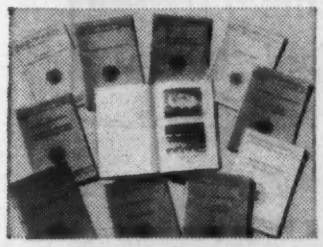

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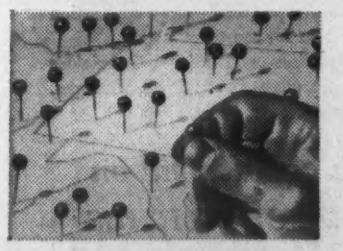

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Sodium Citrate—Sodium Tungstate

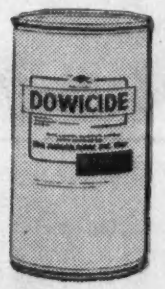
Sodium citrate, anhyd., dms....lb. .60 - .65
USP VIII, gran., dms....lb. .22½ - .29½
USP XIV, gran., dms....lb. .28 - .32
Sodium citrate USP powd. prices ½c. higher.
Cyanide dms., 1,000-lb. lots., works lb. .85 - 1.10
smaller lots, works lb 1.00 - 1.25
Cyanide flake, 96-98% dms., c.l., or 20,000-lb. lots lb. .168 - —
over 1,000 lbs....lb. .175 - —
100-lb to 1,000-lb. lots lb. 188 - —
Granular sodium cyanide 1c. higher.
Diacetate 33-35% acidity, 250-lb. dms., works lb. .14 - —
t.c.l., dms lb. .14¾ - —
anhydrous, dms., c.l., works lb. .17¾ - —
t.c.l....lb. .17¾ - —
Fluoride, white, 90%, bbls., c.l., works lb. .11 - —
t.c.l., works....lb. .1140- —
95%, bbls., c.l., works....lb. .1125- —
t.c.l., works....lb. .1165- —
Fluoroacetate, monobasic, 8-oz. tins, 50 to a case, works....lb.12.00 - —
2 to 25 tins to case, works lb.12.00 -16.50
1 oz. tins, 16 to 64 to case, works lb.16.50 -21.00
Formate, bgs., c.l., divd....100 lbs 7.10 - —
t.c.l....100 lbs 8.15 - 8.45
Gentisate, 100-lb. fib. dms....lb 8.50 - —
Gluconate, technical, bgs....lb. .35 - —
refined technical, dms....lb. .80 - .83
Glutamate, monobasic, dms., c.l....lb. 1.67 - 1.69
Glycerophosphate, NF, cryst., bbls....lb. 1.80 - 1.95
powder, bbls....lb. 1.85 - 2.00
solution, 75%, cbys....lb. 1.06 - 1.21
Hydride, dms., works....lb. 2.00 - 3.00
smaller lots, divd....lb. 1.66 - —
Sodium hydrosulphide (see Sodium sulphydrate).
Hydrosulphite, dms., c.l., frt. alld....lb. .24½- —
t.c.l., frt. alld....lb. .25 - —
Hydroxide, tech. (see Soda caustic).
NF, pellets, 100-lb. dms., 1 to 100 dms lb. .18½- .23
Hypophosphite, NF, dms, ton lots or less lb. .95 - .98
Hyposulphite, photo grade, bgs., c.l., works....100 lbs. 4.00 - 4.25
t.c.l., same basis....100 lbs. 4.65 - 7.15
pea crystals, bgs....100 lbs 4.50 - —
gran., bgs., c.l., works 100 lbs 5.00 - —
tech., bgs., c.l., works....100 lbs. 4.00 - —
t.c.l., works....100 lbs. 4.40 - 6.90
Sodium, hyposulphite crystals in bbls. 50c. higher.
NF (see Sodium thiosulphate).
Iodide, USP, bots., dms....lb. 2.69 - —
Lactate, edible, 50%, dms., cbys., works lb. .21½- —
60% dms. cbys. works lb. .26½- —
tech., 50%, dms., cbys., works, lb. .16½- —
Laurylsulphate, dms., c.l., divd. lb. .25 - —
t.c.l., divd....lb. .26 - —
tanks, divd....lb. .23 - —
Metabisulphite, see sodium bisulphite
Metaborate, octahydrate, gran., bgs., c.l. works ton 78.50 - —
t.c.l., ex whse....ton.124.50 -129.50
Sodium metaborate, octahydrate in bbls., $24.50 per ton higher.
tetrahydrate, c.l., bbls., works, ton.199.50 - —
Sodium metal, tanks, works....lb. .16 - —
bricks, dms., works....lb. .17 - .19
Metanilate, bbls., frt. alld....lb. .62 - —
Metasilicate, anhyd., bgs., c.l., works 100 lbs. 4.70 - —
t.c.l., works....100 lbs. 4.95 - 5.45
dms., c.l....100 lbs. 5.05 - —
t.c.l....100 lbs. 5.30 - 5.55
Pentahydrate, bgs., c.l., works, 100 lbs. 3.80 - —
t.c.l., bgs., works....100 lbs. 4.15 - 4.55
dms., c.l., works....100 lbs. 4.20 - —
t.c.l., works....100 lbs. 4.55 - 4.95
Molybdate, crystals, bbls., works lb. .75 - .85
powd., anhy., dms. works lb. 1.05 - 1.06
Monohydrate (see Sodium carbonate, monohydrated).
Naphthionate, bbls....lb. .70 - —
Nitrate, crude, bgs., c.l., works, ton.51.00 - —
bulk, c.l., works....ton.47.50 - —
imp., 100-lb. bgs., c.l., Atl., Gulf, Pac. whse ton.57.00 - —
bulk, c.l., same basis ton.53.50 - —
Nitrite, bbls., c.l., works, frt. equald....lb. .07¼- —
t.c.l., same basis....lb. .08¾- —
USP, gran., dms....lb. .17 - —
Orthosilicate, anhyd., dms., c.l., works....100 lbs. 5.85 - —
t.c.l., works....100 lbs. 7.60 - —
hydrated, flake, bbls., c.l., works 100 lbs. 4.75 - —
t.c.l., works....100 lbs. 5.50 - —
Oxalate, neut., bgs., works lb. .104 - —
Para-aminobenzoate, dms., 1,000-lb. lots or more lb. 3.00 - —
smaller lots....lb. 3.05 - 3.40
Para-aminosalicylate dms., 1,000-lb. lots., frt adjusted. lb. 4.00 - —
smaller lots, same basis....lb. 4.05 - 4.50
Sodium pentachlorophenate, briquets, bgs., c.l., works, frt. equald....lb. .25½- —
t.c.l., same basis....lb. .26½- .28½
pellets, bgs., c.l., same basis....lb. .25 - —
t.c.l., same basis....lb. .26 - 28
powd., bgs., c.l., same basis....lb. .24 - —
t.c.l., same basis....lb. .25 - 27
Pentachlorophenate 20,000 lbs. min. truckloads ¼c. per lb. over carlot prices.
Perborate, USP, tech., bbls., c.l., works....lb. .193 - —
t.c.l., works....lb. .198 - —
Peroxide, dms., c.l., divd. E. of Miss lb. .1860- —
t.c.l., same basis....lb. .1910- .2010
Phenolsulphonate, USP IX, gran., dms lb. .44 - .45
powd., dms....lb. .47 - .48
Phosphate, diabasic, anhyd., bgs., c.l., works....100 lbs. 7.25 - —
t.c.l., works....100 lbs. 7.65 - —
USP, dried, powd., bgs., dms., works lb. .19 - .20¼
duohydrate, bgs., c.l., works, 100 lbs. 6.65 - —
t.c.l., works....100 lbs. 7.05 - —
monobasic, anhyd., bgs., c.l., works 100 lbs. 8.05 - 8.30
t.c.l., works 100 lbs. 8.45 - 8.70
tribasic, cryst., bgs., c.l., works frt. equald 100 lbs. 4.05 - 5.30
t.c.l., same basis 100 lbs. 4.45 - 8.20
Sodium phosphates in bbls. 40c. higher than bgs.
Prussiate yellow, bgs., 10-ton lots. lb. .13½- —
smaller lots....lb. .14 - —
Pyrophosphate, acid, bgs., c.l., works, frt. equald....100 lbs.10.00 -10.75
ferric, dms. 1,500-lb. lots, works lb. .30 - —
smaller lots, works lb. .31 - —
tetrabasic, anhy., bgs., c.l., works, frt. equald 100 lbs. 7.50 - —
t.c.l., frt equald 100 lbs. 7.90 - —
Salicylate, USP, dms....lb. .63 - —
Sesquicarbonate, bgs., c.l., works, 100 lbs. 2.10 - —
t.c.l., divd., zone 1....100 lbs. 3.85 - 4.25
zone 2....100 lbs. 4.11 - 4.51
zone 3....100 lbs. 4.40 - 4.70
zone 4....100 lbs 5.11 - 5.50

Sales zones are: (1) All States E. of Miss. R. and N. of south bound of Ky. and Va.; Ala., La., and Miss., south of 31° Tex E. of 100°; S. of 31° Fla.; also Me., N. H., and Vt., in which there are special county zones; Davenport, Ia. and St. Louis; (2) Ark. E of 98° Ga.; Iowa (except Davenport), Minn.; Mo. (except St. Louis), Neb., E. of 99° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W of 98°, Kan. Neb. W. of 99°; N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo., and El Paso, Tex.

bbls., c.l., works....100 lbs. 2.45 - —
Sesquisilacate, anhy., dms., c.l., works 100 lbs. 5.50 - —
t.c.l., works....100 lbs. 7.00 - —
hydrated bgs., c.l., works 100 lbs. 4.25 - —
t.c.l., bgs., works....100 lbs. 4.60 - 5.00
Silicate, liquid, 40° 1 to 3.2, turbid., dms., c.l., works....100 lbs. 1.25 - —
t.c.l., works....100 lbs. 1.60 - 2.00
tanks, works....100 lbs. .90 - .95
47° turbid., 1 to 2.9, dms., c.l., works....100 lbs. 1.80 -1.90
t.c.l., dms., works 100 lbs. 2.15 - 2.55
tanks, works....100 lbs. 1.45 - 1.55
52°, turbid., 1 to 2.4, dms., c.l., works....100 lbs. 2.10 - —
t.c.l., works....100 lbs. 2.45 - 2.85
tanks, works....100 lbs. 1.75 - —
solid, bgs., works....ton.52.50 -55.00
Silicofluoride, bgs., c.l., works lb. .070 - —
t.c.l., works....lb. .075 - .076
Stannate, dms., works, frt. alld. E lb. .660 - .716
Stearate tech., dms., works....lb. .43 - .44
USP, dms., works....lb. .70 - .75
Sulphanilate, bbls., works....lb. .22 - —
Sulphate, NF, VII, dried, gran., dms lb. .22½- —
tech., anhyd., bgs., c.l., works, frt. allowance to $10. 100 lbs. 2.25 - —
t.c.l., works, same basis. 100 lbs. 2.50 - 3.00
cryst. (see Glauber's salt).
rayon grd., bgs., c.l., works, ton.27.00 - —
t.c.l., works....ton.33.00 - —
USP, cryst., fib. dms....lb. .17½ - .18
gran., fib. dms....lb. .17½- .19
Sulphide, flake, bbls., c.l., works, E., frt. equald....ton.100.00 - —
t.c.l., same basis....ton.108.00 - —
fused, bbls., c.l., works, E. frt. equald ton.88.50 - —
t.c.l., same basis....ton.93.50 - —
Sulphite anhyd., bgs., c.l., works. 100 lbs. 2.73 - —
t.c.l., same basis....100 lbs. 3.33 - 5.58
regular, cryst., bgs., c.l., works. 100 lbs. 4.80 - —
t.c.l., same basis 100 lbs. 5.20 - 6.45
powder, bbls., c.l., works 100 lbs. 6.75 - —
t.c.l., works....100 lbs. 7.25 - —
Sulphocyanide, CP (see Sodium thiocyanate).
Sulphoricinoleate, bbls....lb. No prices.
Sulphydrate, flake, 70-72%, dms., works, c.l....ton.115.00 - —
t.c.l., works....ton.125.00 - —
liquid 34-40%, 100% basis, tanks, works ton100.00 -117.00
Tetraborate (see Borax).
Tetrasulphide, liquid, 40%, dms., c.l., works lb. .03¼- —
t.c.l., works....lb. .03¾- —
Thiocyanate, CP, dms....lb. .55 - .65
tech., dms., works....lb. .30 - —
Thiosulphate, NF, cryst., bbls lb. .12½- —
tech (see Sodium hyposulphite).
Titanate, etns., c.l., works....lb. .10½- —
5 tons, works....lb. .10¾- —
1 ton or less, works....lb. .11 - —
Trichloroacetate 90%, 100-lb. dms., c.l., frt. alld., E lb. .37½- —
t.c.l., frt. adjusted, E lb. .39½- —
50-lb. dms., c.l., frt. alld., E lb. .38 - —
t.c.l., frt. adjusted, E lb. .40 - —
10-lb. cns., c.l., frt. alld., E lb. .44 - —
t.c.l., frt. adjusted, E lb. .46 - —
Prices West of the Rockies are 1¼c. per pound higher.
Tripolyphosphate, bgs., c.l., works, frt. equald....100 lbs. 7.85 - —
t.c.l., same basis 100 lbs 8.25 - —
Trisilicate, powd., 1:3.2, bgs., c.l., works....100 lbs. 7.75 - —
t.c.l., works....100 lbs. 8.50 - 8.90
dms., c.l., works....100 lbs. 8.15 - —
t.c.l., works....100 lbs. 8.90 - 9.30
Tristearate fib. dms., 20,000 lbs. works lb. .33 - —
10,000 to 20,000 lbs., works lb .35 - —
smaller lots, works lb .38 - .40
Tungstate, tech., bgs., divd. E lb. 3.15 - —

changing or improving your product?

REMEMBER THE PRESERVATIVE!



LIQUID STARCH *is only one instance where* DOWICIDE PRESERVATIVES *have helped to insure product success.*

When products are changed or improved their success is frequently based upon the addition of a preservative. For instance in liquid starch, a new form of an old product, the addition of a Dowicide® Preservative gives the liquid starch *longer life* and *constant quality*—it prevents deterioration that causes objectionable odors and makes the starch ineffective.

Dowicide Preservatives may well have a place in your plans whether you are changing a product or developing a new one. There is a Dowicide Preservative for practically *every* application—assurance of complete protection for most products.
Send today for detailed information on Dowicide Germicides and Fungicides. THE DOW CHEMICAL COMPANY • Midland, Michigan.

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Midland, Michigan
Please send me information on use of DOWICIDE PRESERVATIVES for.....
Name.....Title.....
Company.....
Address.....
City.....State.....

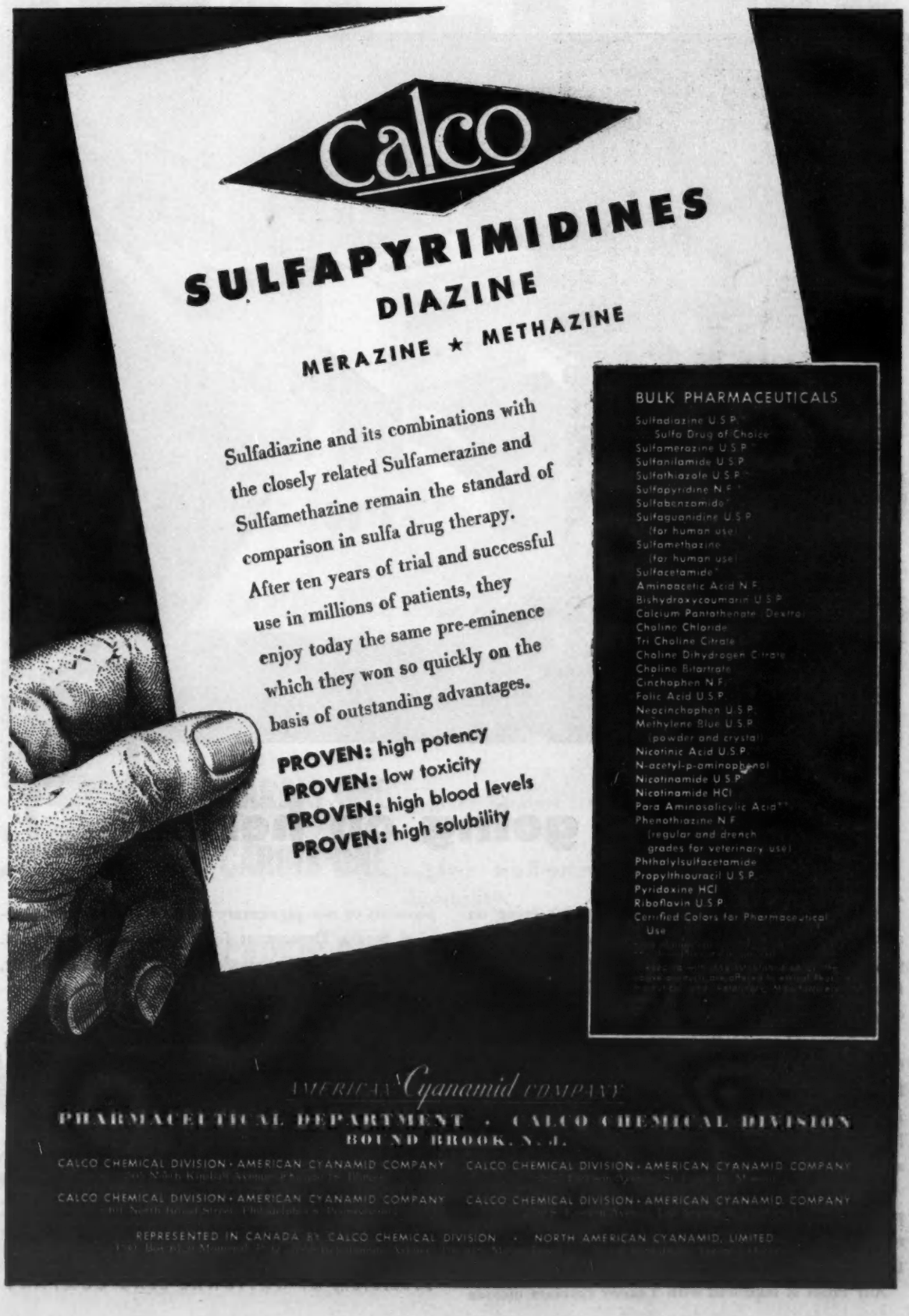
you can depend on DOW CHEMICALS

DOW

Sodium-ammonium phosphate, bbls., works, frt. equald. lb. .23 - —
Sodium-carboxymethylcellulose. See CMC.
Sodium-cinchophen (see Cinchophen-sodium).
Sodium-formaldehyde sulphoxylate, c.l., dms., dlvd. lb. .25½- —
l.c.l., same basis lb. .26 - —
Sodium sulpha, drugs (see Sulpha name).
Sodium-zirconyl sulphate, fiber dms., 1,000 lbs. or more, works lb. .28 - —
less than 1,000 lbs., same basis lb. .30 - —
Solvent naphtha, coaltar, refined, tanks, works gal. .31 - .32
high-flash, tanks, works gal. .31 - .32
petroleum, 100°F., tanks, Baytown, Tex gal. .31 - —
Bayonne gal. .35 - —
150°F., flash, tanks, Baytown, Tex gal. .31 - —
Sorbitan monostearate, fib. dms., 20,000 lbs., works lb. .32 - —
10,000 to 20,000 lbs., works lb. .34 - —
smaller lots, works lb. .37 - .39
Sorbitol, cryst., pellets, dms., c.l., works lb. .30 - —
ton-lots to 5 tons, works lb. .32 - .33
powd., dms., ton lots to 5 tons, works lb. .38 - .39
solution, commercial, aqueous, dms., c.l., works lb. .24¼- —
ton lots, works lb. .25 - —
less ton lots, works lb. .25½- —
tanks, works lb. .23¼- —
regular, 70%, aqueous, dms., c.l., works lb. .16 - —
ton lots, works lb. .16¾- —
less ton lots, works lb. .17 - —
tanks, works lb. .15 - —
Soybean meal, 41% bulk, Decatur. ton. 74.00 -75.00
protein chemically isolated 40,000 to 60,000 lbs., dlvd lb. .23½- —
20,000 to 40,000 lbs., same basis lb. .23¾- —
100 to 20,000 lbs., same basis lb. .24¼- —
mechanically refined, bgs., 40,000 lbs., same basis lb. .0605- —
20,000 lbs., same basis lb. .0620- —
smaller lots same basis lb. .0635- —
Sparteine sulphate, cns. oz. .85 - 1.25
Spearmint leaves, bls. lb. .60 - .65
Spikenard root, bls. lb. .45 - .46
Spruce extract liq. reg., tanks, works lb. .01¾- —
powd. super bgs., c.l., works. lb. .05½- —
l.c.l., works lb. .05¾- —
Squaw vine leaves, bls. lb. .45 - .48
Squill red fortified powd., bbls. boxes lb. 1.60 - —
white, bls. lb. .12 - .15
powd., bbls., bxs. lb. .18 - .21
St. John's bread edible, bls. lb. .10 - .13
Stannous chloride (see Tin chloride stannous)
Star root (see Helonias root)
Stargrass root (see Aletris root)
Starch, corn, pearl, paper bgs., c.l., N. Y. 100 lbs. 7.14 - —
l.c.l. 100 lbs. 7.29 - —
powd., paper bgs., c.l. 100 lbs. 7.36 - —
l.c.l. 100 lbs. 7.32 - —
Prices for corn starch in cotton bags 25c. per 100 lbs. higher.
Potato, dom., Idaho, bgs., c.l., works lb. .08½ Nom.
Maine, bgs., c.l., works lb. No stocks.
l.c.l., spot lb. .11 - .12
imported, bgs. l.c.l. lb. .09½- .10¼
Rice, l.c.l., bgs. lb. .15 - .17
Wheat, bgs lb. .0675- .0710
Stavesacre seed, bgs lb. .60 - .61
Stearin, oleo (see Oleostearin).
Stillingia root, bls. lb. .30 - .31
Stomach substance, not USP, fib. dms. lb. 2.95 - 3.10
Stoneroot bls lb. .07½ .08
Storax, USP, cs. lb. 1.25 - —
Stramonium leaves, bgs lb. .16 - .18
Streptomycin either hydrochloride or sulphate, bulk gram. .21 - —
Strontium bromide, NF, cns., dms. lb. .77 - .78
Carbonate, 92%, dms. lb. .23 - —
Chloride, tech., bbls. lb. .24 - .26
Chromate, bbls., works lb. .46 - —
Iodide jars, 25-lb. lots lb. 3.37 - —
Nitrate, bbls., cs, works lb. .10¼ .11
Oxalate, bbls., works lb. No prices.
Salicylate NF dms lb. 1.65 - —
Sulphate, air floated, 90%, 325 mesh bgs., works ton. 55.70 -66.15
Strontium-calcium sulphide phosphorescent, dms., works lb 2.80 2.85
Strophanthin NF bots oz. 25.00 -25.50
Strophanthus seed, Komba, biologically tested, bgs. lb. 3.25 - —
Strychnine, NF powd., cans, 100 ozs oz. 1.25 - —
Phosphate, NF, 100 ozs oz. 1.14 - —
Sulphate, USP, powd., cans, 100 ozs oz. 1.09 - —
Styrene monomer, dms., c.l., works lb. .22¼- —
l.c.l., works lb. .23¼- —
tanks, works lb. .21 - —
Styrolyl acetate, bots. lb. 1.47 - 1.75
Sucrose octa-acetate, denaturing grd., 100-200-lb. bgs., l.c.l., works lb. .71 - —
Sugar coloring (see Caramel coloring).
Sugar of milk (see Milk sugar).
Sulphabenzamide, dms lb 4.00 4.50
Sodium, dms lb. 4.10 - 4.60
Sulphacetamide, fiber dms lb. 4.00 - 4.30
Sodium, fib. dms lb. 5.00 5.20
Sulphadiazin, USP, microcrystals, dms lb. 10.60 -11.10
powder, dms lb. 10.25 -10.75
Sulphadiazin-sodium, USP, dms lb. 11.25 -11.75
micro crystals, dms lb. 10.60 -11.10
Sulphaguanidin USP, dms lb. 4.50 5.00
Sulphamerazin, USP, micro crystals. lb. 10.65 -11.15
Sulphamerazin-sodium USP, dms., lb. 11.25 -11.75
Sulphamethazine, micro crystals, dms lb. 8.90 - 9.40
powder, dms lb. 8.50 - 9.00
Sulphanilamide, USP, 30-80 mesh., dms lb. 1.40 - 1.60
microcrystals, dms lb. 1.70 - 1.90
powder, dms lb. 1.30 - 1.50
Sulphanilamidoquinoxaline, veterinary, dms lb. 6.50 - 6.75
Sulphapyridin, NF powd., bots., tins. lb. 7.00 - 7.50
Sulphapyridin-sodium monohydrate, dms lb. 7.50 - 8.00
Sulphathiazole, USP, micro crystals, dms lb. 3.15 - 3.30
powder, dms. lb. 2.80 - 2.95
Sulphathiazole-sodium, USP, dms., lb. 2.80 - 2.95
Sulphur, commercial, flour, bgs., mines 100 lbs. 2.03 - —
bbls., mines 100 lbs. 2.20 - —
lump, bgs., mines 100 lbs. 1.70 - —
bbls., mines 100 lbs. 2.00 - —
crude, bulk, c.l., mines, contract, long ton. 21.00 -22.00
f.o.b., vessels, Gulf ports, export long ton. 25.00 -27.50
domestic and Canada long ton. 22.50 -23.50
refined, flowers, USP, bgs., mines. 100 lbs. 2.60 - —
bbls. 100 lbs. 4.75 - —
flour, light, bgs., mines 100 lbs. 3.35 - —
bbls., mines 100 lbs. 4.25 - —
lump, bgs., mines 100 lbs. 2.90 - —
rolls, bgs., mines 100 lbs. 3.35 - —
bbls., mines 100 lbs. 3.80 - —
salt block, bgs., mines 100 lbs. 3.10 - —
virgin block, bbls., mines 100 lbs. 3.01 - —
Sulphur, rubbermakers, com'l, regular bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.40 - —
99-100% passing through 325 mesh, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.40 - —
refined, bgs., mines 100 lbs. 2.85 - —
bbls., mines 100 lbs. 2.95 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.45 - —
bbls., mines 100 lbs. 3.80 - —
10% pine tar, bgs., mines. 100 lbs. 3.65 - —
Dichloride, dms., c.l., works, frt. equald lb. .03½- —
washed, NF, bot. lb. .11 - —
l.c.l., same basis lb. .04¼- —
tankcars, same basis lb. .03¼- —
Dioxide liquid, com'l, cyls., works lb. .09 - —
multi unit cars, works lb. .0535- —
tanks, works lb. .045 - —
refrigeration, cyls., l.c.l., dlvd. lb. .20 - .36
Monochloride, 55-gal. dms., c.l., frt. equald lb. .03½- —
l.c.l., same basis lb. .04¼- —
tanks, same basis lb. .03¼- —
Sumac leaf, 28%, bgs., ex-dock, short-ton. 110.00 - —
ground, same basis ton. 110.00 - —
Superphosphate, run-of-pile, under 22% a.p.a., pulv., bulk, Baltimore unit-ton. .86 - —
Carteret, N. J. unit-ton. .86 - .88
triple, 48% or more, a.p.a., pulv., bulk, East Tampa, Fla. unit-ton. .91 - —
Sweet basil, California, bgs. lb. 1.05 Nom.
imported, bgs. lb. .92 - —

T

2,4,5-T, dms., c.l., works lb. 1.60 - —
l.c.l., works lb. 1.65 - —
Isopropyl ester dms. c.l., works. lb. 1.70 - —
l.c.l., works lb. 1.75 - —
Talc, dom., ordinary, Calif., grd., bgs., c.l., works ton. 25.00 -35.00
Vermont off color, grd., bgs., c.l., works ton. 14.00 - —
l.c.l., works ton. 17.50 - —
fibrous, New York, grd., bgs., c.l., works ton. 25.00 -30.00
l.c.l. ton. 28.00 -35.00
99.5%, 325 mesh, bgs., c.l., works ton. 27.00 - —
l.c.l., works ton. 30.00 -32.00
99.95%, micronized, bgs., works, ton. 36.00 - —
imp. Canadian, grd., bgs., c.l., mines ton. 15.25 -35.00
Tallow, edible, tanks, dlvd. lb. .08 - —
inedible, extra lb. .05¾- —
fancy lb. .05¾- —
No. 1 lb. .04¾- —
special lb. .05 - —
sulphonated, 25%, dms., l.c.l. lb. .06½- .07
50%, dms., c.l. lb. .09½- .10
Tamarind, W.I., bbls lb. .11 - .12
Tankage, animal, feeding, 9-11% ammo, bulk unit-ton. 7.50 - —
Chicago unit-ton. 8.50 - —
Tansy leaves bls lb. .25 - .30
Tapioca flour, high grade, ex whse., bgs. lb. .14 - .15
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .47 - .49
l.c.l., same basis gal. .50 - .51
tanks, same basis gal. .39 - —
25-28%, dms., c.l., same basis. gal. .54 - .56
l.c.l., same basis gal. .57 - .58
tanks, same basis gal. .46 - —
50-53%, dms., c.l., same basis. gal. .70 - .72½
l.c.l., same basis gal. .73½- .74½
tanks, same basis gal. .62½- —
Tar, coal (see Coaltar).
Pine (see Pinetar).
Tarragon herb, bgs lb. .45 - .50
Leaves, bgs lb. .65 - .70
Tartar emetic, tech., gran. or powd., bbls., kgs lb. .56 - .59
dms. lb. .57 - .60
USP, powd., bbls., dms., kgs lb. .61 - .62
Terpin hydrate com'l bbls., c.l lb. 24½- —
l.c.l. lb. 25 - .25½
NF, cryst., fib. dms lb. .70 - .80
powd., fib. dms lb. .75 - .85
Terpineol alpha (see A).
commercial, dms., c.l., South lb. .13½- —
l.c.l., South lb. .14 - —
extra, dms lb. .48 - .60
prime, dms lb. .36 - .45
Terpinglycol ether, dms., c.l., works. lb. .23½- —
l.c.l. works lb. .25½- —
tanks, works lb. .22 - —
Terpinyl acetate, extra, cns., dms. lb. .55 - .70
prime, dms lb. .55 - .60
Propionate, dms lb. 1.75 - 2.00
Terra alba (see Gypsum).
Testosterone, USP, 100 gms., bots. gm. 1.90 - —
Propionate, USP, 100 gms., bots. gm. 1.90 - —



Tetrachloroethane—Vinyl Isobutylether

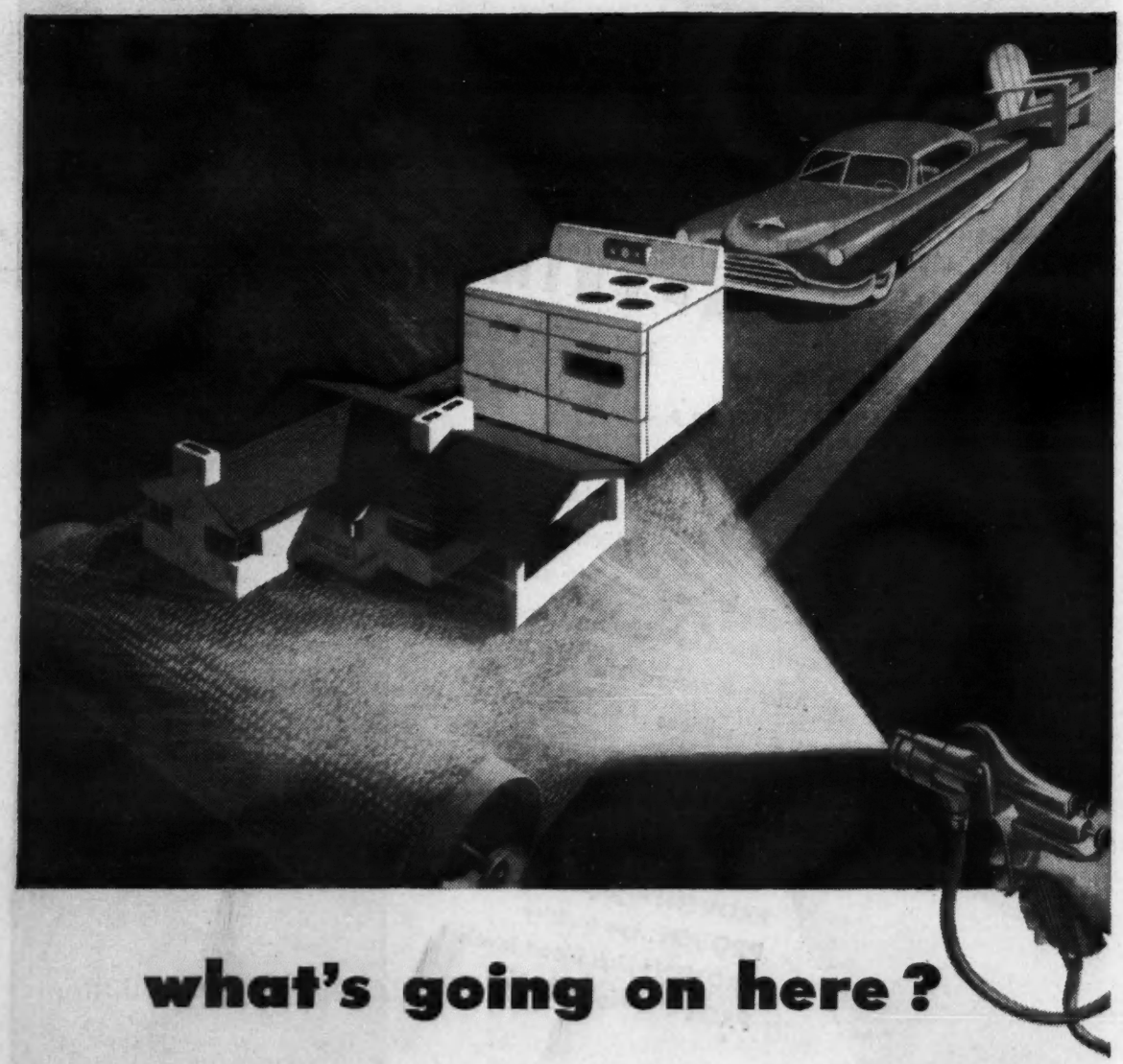
Tetrachloroethane, dms., works lb. .12½- —
Tetrachloroethylene, tech. (see Perchloroethylene).
USP, 55-gal. dms., works lb. .20½- .21½
smaller, dms., works lb. .23½- .25
Tetraethyl orthosilicate, dms., c.l., works lb. .71 - —
l.c.l. lb. .72 - —
Pyrophosphate, 40%, cns., dms., dlvd lb. .714 - —
Tetraethylenepentamine, dms., c.l., dlvd., E lb. .57½- —
l.c.l., dlvd. E lb. .58½- —
tanks, dlvd E lb .56 —
Tetrapotassium phosphate, (see Potassium phosphate).
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Thallium metal, dlvd lb 12.50 -15.00
Sulphate, 99%, bots., dlvd lb 10.50 -12.00
Theobromine fib. dms. lb. 3.75 - —
Salicylate, fib. dms lb. 4.25 - —
Sodio-salicylate, fib. dms lb. 3.10 - 3.15
With sodium acetate, USP, dms. lb. 3.80 - 3.85
Theophylline, anhydrous or USP, 100-lb. dms lb. 4.40 4.45
Thiamine hydrochloride, USP, regular or ampul-type, fib dms kilo. 160.00 - —
Mononitrate, USP, fib dms kilo. 160.00 - —
Thiocarbanilide, dms lb 44 .51
Thiodiphenylamine (see Phenothiazine).
Thiophene, dms., c.l., works lb 1.99¾- —
l.c.l., same basis lb 2.00 — —
Thiourea, tech., dms., c.l., works. lb .43½- —
l.c.l., works lb .45½- —
Thorium nitrate, purified, fib, dms., 100-lb. lots or more, works lb. 3.50 - —
Threonine dextro laevo, bots., 1-kilo lots kilo. 600.00 - —
Thyme, French, bgs lb. .22 - .23
Spanish, bls lb. .06 - .06½
Thymol, fib. dms lb. 3.25 3.30
Iodide, NF, dms lb. 6.80 - —
Timbo root (see Cube root).
Tin chloride, stannous anhyd., dms. works lb. .98½- .99½
Crystals, hydrous, bgs., bbls., works lb. .80¾- —
Metal lb. 1.21½- —
Oxide, dms lb. 1.23 1.24
Sulphate, stannous, bbls lb. 1.09 1.11
Tetrachloride, anhyd., dms., works. lb. .89 .90
Titanium dioxide anatase, chalk resistant, bgs., c.l., dlvd. lb. .21 - .21½
l.c.l., dlvd lb. .22 - .22½
regular, bgs., c.l., dlvd lb. .21 - .21½
l.c.l., dlvd. lb. .22 - .22½
ceramic, bgs., c.l. dlvd lb. .21 - .21½
l.c.l. dlvd lb. .22 - .22½
metallurgical, natural granular, bgs., c.l., f.o.b. Jacksonville, Fla ton. 110.00 - —
c.l., Niagara Falls, N Y ton 127.50 - —
5 tons, same basis ton 132.50 - —
ton lots, same basis ton 137.50 - —
Oilfilled, $7.50 per ton higher.)
rutile, non-chalking, bgs. c.l., dlvd. E lb. .23 .23½
l.c.l., dlvd. E lb. .24 .24½
Hydride, cns., works lb. 7.95 9.00
Pigment, calcium-rutile, base, bgs., c.l. dlvd lb .08 .08½
Titanium dioxide and pigment in bbls., ¼c. higher, Pac. coast, c.l., dlvd. L.c.l., ex whse., ½c. higher.
Titanium tetrachloride, tech., dms., c.l., works. lb. .45½- —
l.c.l., works lb. .48½- .50½
tankcars, works lb. .44½- —
Tolidin base, distilled, kgs lb. 1.30 - —
Tolu balsam, cns., dms lb. 3.75 - 4.85
Toluene (see Toluol).
Toluol, coaltar, industrial and nitration, tanks, works:—
Bethlehem, Pa gal. .32 - —
Birmingham dist. gal. .30 - —
Chicago dist gal. .33 - —
Cleveland dist. gal. .32¾- —
Geneva, Utah gal. .26 - —
Hamilton, Ohio gal. .32 - —
Johnstown, Pa gal. .30 - —
Lackawanna, N. Y. gal. .33 - —
Lone Star, Tex. gal. .35 - —
Lorain, Ohio gal. .31 - —
Minequa, Colo. gal. .32 - —
Philadelphia Pa. gal. .33½- —
Pittsburgh dist. gal. .30 - —
Sparrow's Point, Md gal. .32 - —
Syracuse, N. Y. gal. .30½- —
Terre Haute Ind. gal. .33½- —
Wyandotte, Mich. gal. .34¼- —
Youngstown Ohio gal .30½- —
Petroleum, industrial, 2° tanks, works:—
Albany, N. Y. gal. .33 - —
Bayonne, N. J. gal. .33 - —
Baytown, Tex. gal. .31 - —
Chicago, Ill gal. .33 - —
Detroit, Mich. gal. .33 - —
Philadelphia, Pa. gal. .33 - —
Providence, R. I. gal. .33 - —
Wood River, Ill. gal. .33 - —
Tonga, 50% bark and vine, bls. lb. .60 - .65
Tonka beans, Angostura cks. lb 1.75 1.80
Brazilian, Surinam, cs. lb. 1.10 - 1.25
Totaquine, 100-oz. tins, cns. oz. .42 —
Toxaphene, dms., c.l., works. lb. .23 - —
truckloads, works lb. .23 - —
ton to truckloads, works lb. .26 - —
less than ton lots, works lb. .29 - —
Triacetin, dms., c.l., dlvd. E, of Rockies lb. .42¾- —
l.c.l., same basis lb. .43¾- .45½
tanks, same basis lb. .41 - —
Tributyl citrate, tech., dms., c.l. lb. .40½- —
l.c.l. lb. .41½- —
tanks lb. .39 - —
Phosphate, dms., c.l., frt. alld lb. .51¾- .63½
l.c.l., same basis lb. .52¾- .64½
tanks lb. .50 - —
Tributylamine, dms., c.l., works, lb. .73½- —
l.c.l., same basis lb. .75 - —
tanks, same basis lb. .72 - —
Trichlorobenzene dms., c.l., works, frt. alld lb. .12½- —
l.c.l., frt. alld lb. .13½- —
tanks, frt. alld lb. .11 - —
Prices in the West 1¾c. higher.
Trichloroethane, dms., c.l., works lb. .13 - —
l.c.l., works lb. .13½- —
tanks, works lb. .11½- —
Trichloroethylene, dms., c.l., or truckloads, works, frt. equald lb. .11 - —
dlvd. E lb. .12½- —
l.c.l., works, frt. equald lb. .11½- —
dlvd. E lb. .13½- —
tanks, works, frt. equald lb. .10 - —
dlvd. E lb. .11 - —
Tricholine citrate, 65% solut., ret. cbys works, frt adjusted. lb. 1.40 - 1.45
Tricresyl phosphate coaltar, dms., c.l., dlvd lb. .34¾- —
l.c.l., dlvd. lb. .35¾- —
tanks, dlvd. lb. .33 - —
petroleum dms., c.l., dlvd lb. .34¾- —
l.c.l., dlvd. lb. .35¾- —
tanks, dlvd. lb. .33 - —
Triethanolamine, dms., c.l., dlvd. E lb. .26¼- —
l.c.l., same basis lb. .27¼- —
tanks, same basis lb. .24¼- —
Triethylamine, dms., c.l., works, frt. alld. E. of Rockies lb. .45½- —
l.c.l., same basis lb. .46½- —
tanks, same basis lb. .43¾- —
Triethyl citrate, tech., dms., c.l lb. .37½- —
l.c.l. lb. .38½- —
tanks lb. .36 - —
Phosphate dms., works, c.l. lb. .38 - —
l.c.l., same basis lb. .39 - —
tanks, same basis lb. .37 - —
Triethyleneglycol, dms., c.l., dlvd. E. lb. .23¼- —
l.c.l., same basis lb. .24¼- —
tanks, same basis lb. .21½- —
Triethylenetetramine, dms., c.l., dlvd. E lb. .48½- —
l.c.l., dlvd. E lb. .49½- —
tanks, dlvd. E lb. .47 - —
Trimethylamine, 25-40%, dms., c.l., works, frt. equald, 100% basis lb. .38 - —
l.c.l., works, frt. equald, 100% basis lb. .38½- —
tanks, works, frt. equald., 100% basis lb. .33 - —
Tripentaerythritol, bgs., c.l., works, lb. .36½- —
l.c.l., same basis lb. .39½- —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .37 - —
l.c.l., frt. equald lb. .38 - —
Triphenylguanidine, bbls., works lb. .90 - —
Tripoli, air floated, bgs., c.l., works. lb. .02 - —
double grd., bgs., c.l., works lb. .0185- —
single-grd., bgs., c.l., works lb. .0175- —
Tripropyleneglycol, dms., c.l., frt. alld lb. .26¼- —
l.c.l., frt. alld lb. .27¼- —
tanks, frt. alld lb. .24½- —
Trisodium fluoroacetate (see sodium fluoroacetate tribasic).
Trisodium phosphate (see Sodium phosphate tribasic).
Trypsin, pharmaceutical, 1:80, dms., works lb. 4.00 - 5.50
Tryptophane, dextro-laevo, fib. ctns works kilo. 165.00 - —
Tuba root (see Cube root).
Tungsten metal, powd., 99.9%, dms., works lb. 7.75 - —
Turmeric root, Alleppey, bgs. lb. .22 - .22½
Haitian, bgs lb. .10 - .11
Madras, bgs. lb. .14 - .14½
Turpentine, gum and wood (see Protective Coatings market, Naval Stores).
Tyrothricin, USP, bots gram. 1.00 - 1.10

U

Urethane, USP dms lb 1.50 - —
Unicorn root false (see Helonias root)
True (see Aletris root).
Uranium oxide, black, bgs lb 2.55 - —
yellow, kgs lb 1.65 - —
Urea, dom., 46%, N bgs., c.l., wks. lb. .05½- —
l.c.l., works lb. .06 - —
44% N, bgs., c.l., 30 tons, frt alld, Kan., Neb., N. Dak., Okla., S. Dak., Tex., and east ton. 142.00 - —
l.c.l., dlvd ton. 146.00 - —
Urea-ammonia liquor, A and B grades, N basis, tankcars, Belle, W Va ton. 120.00 - —
C and D grades, tankcars, same basis ton. 118.50 - —
37 grade, tankcars, same basis ton. 147.50 —
Uva ursi leaves, bls lb. .12 - .14

V

Valerian root, Belgian, NF bls lb. .40 - .42
Valine dextro-laevo, dms. works. lb. 21.00 -27.50
Valonia, beards, 40-42% tannin, bgs., ex dock ton. 85.00 - —
cups 28-30% tannin, bgs., ex dock, ton. 64.00 - —
extract, powd., bgs., ex dock, duty extra lb. .09½- —
Vanadium pentoxide, CP, bgs., cns, contract, works lb. 7.00 - —
tech., dms. works lb 1.28 - 1.33
Vanilla, beans, Bourbon, tins lb. 3.75 - 4.00
Mexican, cuts, tins lb. 3.50 - 3.75
whole, tins lb. 4.00 - 4.50
Tahiti cs lb. 3.00 Nom.
Vanillin, ex eugenol, tins, 25 lbs lb. 6.75 —
smaller lots lb 6.90 7.25
ex guaiacol, tins, 25 lbs lb. 3.00 —
smaller lots lb. 3.05 3.15
ex lignin, tins, 25 lb. lots lb 3.00 —
smaller lots, tins lb 3.05 3.15
Vinyl acetate, 55-gal. dms., c.l., works lb. .20¾- —
l.c.l., works lb. .21¼- —
tanks, works lb. .19¾- —
Vinylether, normal, tech., dms., c.l., works lb. .28 - —
l.c.l., works lb. .30 - —
tanks, works lb. .27 - —
Ether (see Ether divinyl).
Ethylether, tech., dms., c.l., works lb. .28 - —
l.c.l., works lb. .30 - —
tanks, works lb. .27 - —
Isobutylether, tech., dms., c.l., works lb. .28 - —
l.c.l. works lb. .30 - —
tanks, works lb. .27 - —



what's going on here?

Titanox titanium dioxide, for one thing. It's going on more products, for home, industry, business and personal use, than ever before. As an important part of any type finish, it's giving new life to colors, making whites whiter, on thousands of new products.

Titanox TiO_2 is of course preeminent in paints, but that's only the beginning. Baking enamels, automotive lacquers, metal-decorative finishes, porcelain enamels are just a few of the applied coatings which have reached new levels of brightness and opacity through TiO_2 research and development by Titanox.

TiO_2 not only goes *on*, but *into* an untold number of products. Paper, rubber, plastics, floor coverings, leather, textiles... all have a more attractive appearance through the use of Titanox.

Any finish is improved with Titanox titanium dioxide pigments or non-pigmentary TITANOX-TG. Ask our Technical Service Department for suggestions in your field. Titanium Pigment Corporation, Dept. WA, 111 Broadway, New York 6, N. Y.

9004

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Subsidiary of NATIONAL LEAD COMPANY

Warwick Wax Company
originators, pioneers and leaders
of the oxidized petroleum wax industry
are proud to present
their new development in wax

CARDIS-ONE

first emulsifiable
petroleum wax with

PENETRATION ONE—TWO

melting point 195-200°F

CARDIS ONE —the first emulsifiable petroleum wax with penetration one—two.

CARDIS ONE —the hardest emulsifiable petroleum wax on the market.

CARDIS ONE —gives greatest wear-resistant films.

CARDIS ONE —gives scuff-proof films with highest gloss and durability.

CARDIS ONE —is ready for you now. Ask for samples, specifications, suggested formulations, technical service.

CARDIS ONE —is produced at the Warwick Wax Refinery, Chanute, Kansas, home of Cardis Waxes, America's most widely used emulsifiable petroleum waxes.

WARWICK
WAX
Company, Inc., Subsidiary

Sun
CHEMICAL
CORPORATION

10TH STREET AND 44TH AVENUE, LONG ISLAND CITY, N.Y.

Vinyl Methylether—Yellow, Hansa

Vinyl methylether, cyls., works lb. .30 - —
tanks, works lb. .27 - —
Cylinders are sold outright, or if shipped against deposit, a free period of 60 days is allowed; and if empties are returned prepaid and in good condition within that period, full refund is made.
Trichloride. (see Trichloroethane).
Pyridin, ret. dms., works lb. 1.65 - —
Viosterol, in alcohol, 1,000,000 D units per gm., bots., lots of 10 billion USP units, 1,000,000 units. .025 - —
lots of 1 billion USP units, 1,000,000 units. .03 - —
lots of less than 1 billion USP units 1,000,000 units. .035 - —
in natural vegetable oil, 400,000 to 1,000,000 D units per gm. bots., lots of 100 billion USP units, lots of 1 billion USP units, 1,000,000 units. .025 - —
lots of less than 1 billion USP units, 1,000,000 units. .03 - —
Vitamin A, synthetic, acetate, crystalline, beads, 500,000 A units per gm 1,000,000 units. .17 - —
liquid, in oil, 1,000,000 A units per gm 1,000,000 units. .15 - —
natural, concentrates (see Oil, fishliver).
Palmitate, liquid, 1,000,000-1,500,000 A units per gm 1,000,000 units. .15 - —
in oil, 1,000,000 A units per gm 1,000,000 units. .15 - —
B_1 (see Thiamine hydrochloride).
B_2 (see Riboflavin).
Vitamin, B complex, natural (see Rice bran concentrate and Yeast).
B_6 (see Pyridoxine hydrochloride).
B_{12}, crystalline, gm. or 5 gm. vials gram 295.00 - —
oral grade solids, in containers of 1 and 5 grams of B_{12} activity gm. 225.00 - —
C (see Acid, ascorbic).
D (see Oils, codliver and fishliver, Calciferol, and Viosterol).
D_2 (see Calciferol).
E (see Alphatocopherol and Oil, wheatgerm).
G (see Riboflavin).
H (see Biotin).
K, Active (see Menadione).
K_1, 25 gm. bots gram. 4.50 - —
Violet methyl toner (see Blue, methylviolet toner)
V.M.&P. naphtha (see Petroleum naphtha).

W

Wahoo root bark, bls lb. 1.95 - 2.00
tree bark, bls lb. .95 - 1.00
Warfarin, 0.5%, dms., 50 lb. lots, f.o.b. N. Y. or Chicago lb. 1.95 - —
25-49 lb. lots, same basis lb. 2.05 - —
5-24 lb. lots, cns., same basis lb. 2.15 - —
Wattle bark, fair average, or E. Afr., bgs., ex dock ton. 103.00 —
merchantable, bgs. ex dock ton. 99.00 -100.00
extract, liquid 35% tannin, bbls., works lb. .10¾- .11
solid, E. Africa, 61% tannin, bgs., ex dock, duty extra, lb. .11 - —
S. Africa, 67% tannin, ex-dock, duty extra lb. .11¼- —
Wax amorphous (see Wax microcrystalline).
Bayberry, bgs., spot lb. .55 Nom.
Bees, crude, African, bgs. lb. .47 - .48
Brazilian, bgs lb. .70 Nom.
Central American lb. .54 - .55
refined, bleached, USP, bricks, lb. .69 - .71
slabs lb. .67 - .69
yellow, bricks lb. .56 - .57
slabs lb. .55 - .58
Candelilla, crude, bgs lb. .75 - .77
refined, bgs lb. .77 - .79
Powdered candelilla, 20 mesh, 5c. per lb. extra; 80 mesh, 5½c.; 100-200 mesh, 6c.
Carnauba, chalky, bgs., ton lots, lb. No stocks.
North Country, No. 2, bgs., ton lots lb. No stocks.
No. 3, crude, bgs., ton lots lb. .94 - .96
refined, bgs., ton lots lb. .98 - 1.00
yellow, No. 1, bgs., ton lots lb. 1.25 - 1.27
No. 2, bgs., ton lots lb. 1.23 - 1.25
Powdered carnauba price differentials same as powdered candelilla.
Esparto, African lb. .80 - .82
Japan, bgs lb. .23 - .25
Microcrystalline, 170°-175° m.p., ASTM, amber cns., 20,000 lbs. group 3, works lb. .13 - .14
Less than 20,000 lbs., same basis lb. .14 - .15
black, cns., 20,000 lbs., same basis lb. .11½- .12½
Less than 20,000 lbs., same basis lb. .12½- .13½
white, cns., 20,000 lbs. same basis lb. .24 - .25
less than 20,000 lbs., same basis lb. .25 - .26
Wax, microcrystalline, 180°-185° m.p., ASTM, amber, cns., 20,000 lbs., same basis lb. .16 - —
less than 20,000 lbs., same basis lb. .17 - —
black, cns., 20,000 lbs., same basis lb. .14½- —
less than 20,000 lbs lb. .15½- —
180°-185° m.p., ASTM, white, cns., 20,000 lbs., same basis lb. .27 - —
less than 20,000 lbs., same basis lb. .28 - —
190°-195° m.p., ASTM, amber, cns., 20,000 lbs., same basis lb. .20 - —
less than 20,000 lbs., same basis lb. .20½- —
black, cns., 20,000 lbs., same basis lb. .18 - —
less than 20,000 lbs., same basis lb. .18½- —
white, cns., 20,000 lbs., same basis lb. .33½- —
less than 20,000 lbs., same basis lb. .34½- —
Montan, dom., refined, bgs lb. .31 - .32
German, crude, bgs lb. .12½- .13⅛
Ouricury, ref., bgs lb. .71 - .73
Paraffin (see P).
Spermaceti, blocks, cs lb. .26 - .29
cakes, cs lb. .27 - .30
Sugar cane, crude, imp. lb. .43 - —
ref., dom., works lb. .75 - .80
spot lb. .77¼- .82¼
White lead (see Lead, white).
White pine bark, rossed, bls lb. .17 - .18
White precipitate, USP powd., dms., lb 5.00 - —
Whiting, limestone, dry-grd., 99.5%, 325 mesh bgs., c.l., works, ton 6.00 -10.00
smaller lots, works ton 6.50 -15.00
wet-grd., bgs., c.l., works ton 16.00 -30.00
smaller lots, works ton 21.00 -35.00
Paris white, bgs., c.l. ton 24.00 -31.00
l.c.l. ton 25.00 -40.00
Precipitated, bgs., c.l. ton 18.00 -20.00
l.c.l. ton 25.00 -35.00
Wild cherry bark, thick, natural, bls lb. .06 - .07
thin, natural, bls lb. .17 - .19
rossed, bls lb. .19 - .22
Ginger (see Snake root, Canada).
Indigo root, bls lb. .30 - .31
Yam root, bls lb. .16 - .17
Witch hazel leaves, bls lb. .19 - .20
Woodflour 40 mesh, bulk, c.l., works, East ton 32.00 - —
l.c.l., same basis ton 36.80 - —
60 mesh, bulk, c.l., same basis ton 37.00 - —
l.c.l., same basis ton 42.00 -55.00
80-100 mesh, bulk, c.l., same basis ton 45.00 -50.00
l.c.l., same basis ton 51.75 -57.50
Woodflour in bgs. extra, returnable.
Woolfat, crude (see Degras).
USP (see Lanolin).
Wormseed, American, bgs lb. .14 - .16
Levant, bgs lb. 4.25 - 4.50
Wormwood leaves, bls lb. .35 - .45

X

Xanthorrhiza root, bls lb. .28 - .30
Xylene (see Xylol).
Xylenol, cryst., 56°-58°C. m.p., ret. dms., l.c.l., works, frt. equald. lb. .25 - —
45°-47°C. dms. c.l., same basis. lb. .212 - —
l.c.l., same basis lb. .215 - —
tanks, same basis lb. .199 - —
fractions, over 7°C, b.r., except meta, dms., c.l., same basis. gal. 1.31 - —
l.c.l., same basis gal. 1.34 - —
tanks, same basis gal. 1.20 - —
meta fraction, over 7° C., dms., c.l., same basis gal. 1.46 - —
l.c.l., same basis gal. 1.49 - —
tanks, same basis gal. 1.35 - —
Xylidins, mixed, dms lb. .39 - .50
Xylol, coaltar, industrial, tanks, works
Bethlehem, Pa gal. .33 - —
Birmingham district gal. .30¼- —
Chicago district gal. .33½- —
Cleveland district gal. .33 - —
Geneva, Utah gal. .25 - —
Hamilton, Ohio gal. .32 - —
Johnstown, Pa gal. .31 - —
Lackawanna, N. Y. gal. .33 - —
Lone Star, Tex gal. .35 - —
Lorain, Ohio gal. .31 - —
Minequa, Colo gal. .34 - —
Philadelphia, Pa gal. .33 - —
Pittsburgh district gal. .30 - .33
Sparrows Point, Md gal. .33 - —
Terre Haute, Ind gal. .35 - —
Wyandotte, Mich gal. .34¼- —
Youngstown, O gal. .30½- —
Petroleum, indust., tanks, Albany, N. Y. gal. .33 - —
Bayonne, N J gal. .33 - —
Baytown, Tex gal. .31 - —
Chicago, Ill gal. .33 - —
Philadelphia, Pa gal. .33 - —
Providence, R. I gal. .33 - —
Wood River, Ill gal. .33 - —

Y

Yara yara, cns lb. 2.25 2.65
Yeast, brewer's, dry, USP, 50 Int'l B units per gram, 100-lb. dms lb. .47 - —
90 Int'l B units per gram, 100-lb dms lb. .52 - —
200 Int'l B units per gram, 100-lb. dms lb. .56 - —
300 Int'l B units per gram, 100-lb dms lb. .60 - —
Yellow, barium chromate, CP, bgs., l.c.l., dlvd. N. of Tenn. and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island, St. Louis, St. Paul lb. .35 - —
Barium chromate yellow price differentials in other States and city zones are those for chrome yellow below.
Benzidin, AAA, bbls., dlvd lb. 1.91 - —
AAOT, bbls lb. 2.06 - 2.15
Cadmium, CP all shades, bbls., frt. alld., E. of Rockies lb. 2.85 - —
lithopone, all shades, bbls., frt. alld., E. of Rockies lb. 1.20 - —
Cadmium yellows, Los Angeles, and San Francisco, ex whse., 1c. per lb. higher.
Chrome, CP, bbls., dlvd. N. Tenn. and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island lb. .31 - —
Dlvd. Ala., Fla., Ga., La. (Shreveport, 1¼c. higher); Miss., N. C., S. C., Penna., Dallas, Tex., 1¼c. higher; Ft. Worth, Tex., 1½c. higher; El Paso, Tex., 2c. higher; Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph, 1.6c. higher dlvd. Pac. Coast; for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.
Hansa, 10 G, bbls., same basis as chrome lb. 2.15 - —
G, pigment, bbls lb. 1.91 - —

AMERICAN CHEMICAL PAINT COMPANY

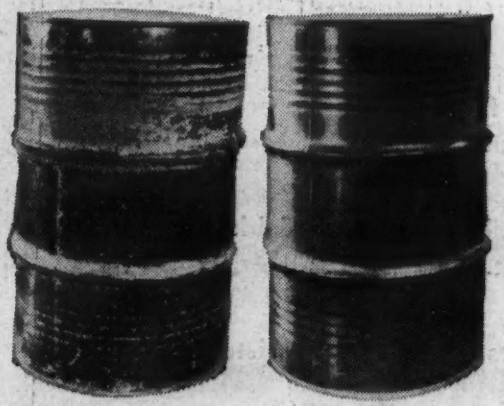
AMBLER CHEMICALS ACP PROCESSES PENNA.

Technical Service Data Sheet

Subject: HOW *GRANODIZING* PROTECTS STEEL DRUM SURFACES FROM RUST AND IMPROVES PAINT ADHESION

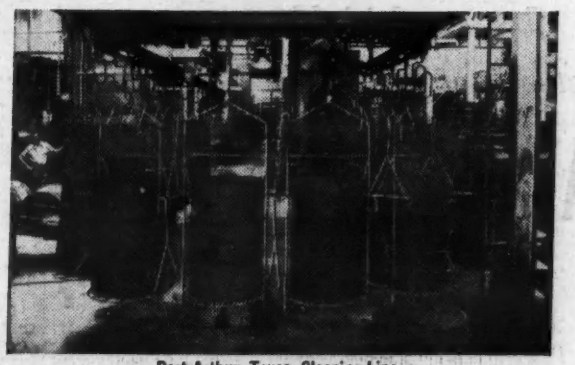
NEW DEVELOPMENT IN CONTAINER INDUSTRY

United States Steel Products Division, United States Steel Company is now producing grease-free, scale-free, rust-inhibited steel drums. A chemically clean metal surface plus a "Granodine" non-metallic zinc phosphate coating insures maximum finish durability and underpaint rust-resistance.



ORDINARY PAINTED DRUM after a year of exposure to weather is badly rusted. Rust was very apparent after only one week.

U. S. S. RUST-INHIBITED DRUM of similar type shows absolutely no rust after same year's test.



Port Arthur, Texas, Cleaning Line

U. S. S. drums about to enter the 400 foot cleaning and treating line. Powerful impingement sprays directed at the fabricated shell, head, and bottom, insure that the entire interior and exterior of the drum will receive full cleaning and rust-inhibiting treatment.

ADVANTAGES OF GRANODIZED STEEL DRUMS

These new phosphate-coated steel drums exhibit many advantages for companies using these containers.

They are chemically clean, "water-break free" inside, free of contaminating residues such as grease, oil, drawing and stamping compounds. When the familiar handkerchief test is applied to United States Steel Products' containers processed by their new finishing technique, no contamination of any kind is left on the cloth.

They are free of mill-scale. United States Steel Products is the first steel drum manufacturer to remove harmful mill scale completely ahead of the zinc phosphate coating stage.

They are rust-inhibited with a zinc phosphate-coating. These new steel drums have the added advantage of a non-metallic, paint-bonding "Granodine" zinc phosphate coating. This has been standard practice for many years in the automotive and appliance industries for long-lasting paint protection and metal preservation.

THE PROTECTIVE CHEMICAL TREATMENTS

The Granodizing process embodies the following steps:

1. Grease and dirt removal
2. Full scale removal, after welding the side seam
3. Zinc phosphate coating with "Granodine"
4. Acidulated rinsing in "Deoxylyte" solution

CHEMICALS ACP PROCESSES

WRITE FOR INFORMATION ON "GRANODINE" AND ON YOUR OWN METAL PROTECTION PROBLEMS

CHEMICALS ACP PROCESSES

Yellow, iron oxide, natural, bgs., c.l., works	lb.	.0141-	.0250
l.c.l., works	lb.	.0166-	.0275
French type, bgs., c.l.,	lb.	.04½-	—
l.c.l.	lb.	.04¾-	—
Peruvian type, bgs., c.l.	lb.	.0165-	—
pure, bgs., c.l., works	lb.	.10	—
l.c.l., works	lb.	.1025-	—
Mercury oxide, bbls., 1,000-lb. lots	lb.	4.15	—
smaller lots	lb.	4.17	—
Ocher American golden, bgs., works	lb.	.01¼-	.02¾
Zinc (chromate), bbls., dlvd.	lb.	.25	—
basic, dlvd.	lb.	.30	—
Yellow dock root, bls.	lb.	.18	.19
Yellow xanthorrhiza (see Xanthorrhiza).			
Yerba santa leaves, bls	lb.	.32	.33
Yohimbine hydrochloride, bots., tins.	oz.	4.75	5.25

Z

Zein, bgs., 30,000 lbs. lots, works	lb.	.38	—
1,000-lb. to 30,000-lb. lots, works	lb.	.40	—
smaller lots, works	lb.	.43	—
Zinc acetate tech. bbls. dms. works.	lb.	.27	—
NF VIII, dms	lb.	.53	—
Borate, bgs., c.l., dlvd. E	lb.	.192	—
l.c.l., dlvd. E	lb.	.202	—
Carbonate, tech., rubbermakers, bgs., c.l., works	lb.	.14½-	—
l.c.l., works	lb.	.15	—
Chloride, NF, gran., dms	lb.	.23	—
precipitated, powd., dms	lb.	.26	—
solution, 50%, dms., c.l., works.	100 lbs.	4.75	—
l.c.l., works	100 lbs.	5.35	—
tanks, works	100 lbs.	4.10	—
tech., fused, dms., c.l., works.	100 lbs.	9.00	—
l.c.l., works	100 lbs.	10.00	—
gran., fib., dms., c.l., works	100 lbs.	10.60	—
l.c.l., works	100 lbs.	11.00	—
Chromate (see Yellow zinc).			
Cyanide, kgs., over 1,000 lbs., works	lb.	.523	—
under 1,000 lbs., works	lb.	.543	—
Dust, pigment, bbls., c.l., works	lb.	.16	—
l.c.l., works	lb.	.17	—
Fluoride, bbls., works	lb.	.40	—
Hydrosulphite, dms., c.l., frt. alld	lb.	.21½-	—
l.c.l.	lb.	.22	.37½
Iodide, NF, jars	lb.	4.92	—
Laurate, bbls	lb.	.45	.46
Metal, slabs, E. St. Louis	lb.	.12½-	—
Naphthenate, liquid, 8% Zn, frt. alld	lb.	.23½-	—
10% Zn, dms., frt. alld	lb.	.28½-	—
Oleate, fused, bbls	lb.	.36	—
Oxide, pigment, American process lead-free, bgs., c.l., dlvd	lb.	.1425-	—
l.c.l., dlvd	lb.	.1525-	—
leaded 35%, bgs., c.l., dlvd.	lb.	.1440-	—
l.c.l., dlvd	lb.	.1540-	—
50%, bgs., c.l., dlvd	lb.	.1450-	—
l.c.l., dlvd	lb.	.1550-	—
French process, com'l green seal, bgs., c.l., dlvd	lb.	.16	—
l.c.l., dlvd	lb.	.17	—
red seal, bgs., c.l., dlvd.	lb.	.15½-	—
l.c.l., dlvd	lb.	.16½-	—
white seal, bgs., c.l., dlvd	lb.	.16½-	—
l.c.l., dlvd	lb.	.17½-	—
USP, ctns., c.l., dlvd	lb.	.17½-	—
l.c.l., dlvd	lb.	.18½-	—
Zinc oxide Pac. coast prices 1c. higher; bbl. prices ¼c higher than bgs.			
Phenosulphonate, NF, gran., dms.	lb.	.39	—
powd., dms	lb.	.42	.49
Resinate precip., dms., frt. alld.	lb.	.26½-	—
	lb.	.26¾-	—
Silicofluoride, bbls., works	lb.	.12	.13
Stearate, tech., USP, ctns., c.l.	lb.	.37	—
ton, lots	lb.	.36	—
less ton lots	lb.	.39	—
Sulphate cryst., 22% Zn, bgs., c.l., works, frt. alld	100 lbs.	7.30	—
l.c.l., same basis	100 lbs.	7.70	—
flake, 25½% Zn, bgs., c.l., works	100 lbs.	6.55	—
l.c.l., works	100 lbs.	6.90	—
powdered, 36% Zn, bgs., c.l., frt. alld	100 lbs.	9.25	9.95
l.c.l., same basis	100 lbs.	10.00	10.70
Zinc sulphate in bbls., 40c higher.			
USP, gran., dms	lb.	.26	—
Sulphide, pure, bgs., c.l., dlvd	lb.	.2530-	—
fluorescent, fib., dms., less than 1,000 lbs., works	lb.	1.10	1.90
phosphorescent fib., dms., less than 1,000 lb. lots, works.	lb.	1.85	2.50
Undecylenate, dms	lb.	2.25	2.50
Yellow (see Yellow, zinc).			
Zinc-ammonium chloride, bgs., c.l., works	100 lbs.	9.05	—
l.c.l., works	100 lbs.	9.45	—
Zinc-cadmium sulphide, fluorescent fib., dms., under 1,000 lbs., works	lb.	2.10	2.90
Zinc-calcium resinate, dms., c.l., works	lb.	.1180-	.1360
l.c.l., same basis	lb.	.1220-	.1400
Zinc-formaldehyde sulphoxylate, basic, dms., c.l.	lb.	.25½-	—
l.c.l.	lb.	.26	.41¼
normal, dms., l.c.l., works	lb.	.52	—
Zircon, (G), granular, bgs., c.l., works	lb.	.03½-	—
5 tons to c.l., works	lb.	.03⅝-	—
1 ton to 9,999 lbs., works	lb.	.03¾-	—
500 lbs. to 1,999 lbs., works.	lb.	.04	—
less than 500 lbs., works	lb.	.06½-	—
milled, bgs., c.l., works	lb.	.04½-	—
5 tons to c.l., works	lb.	.04⅝-	—
1 ton to 9,999 lbs., works	lb.	.04¾-	—
500 lbs. to 1,999 lbs., works.	lb.	.05	—
less than 500 lbs., works	lb.	.07½-	—
Zircon (G) in barrels, ¼c. higher.			
Zirconium acetate 13% sol ZrO_2, c.l., 30,000 lbs., minimum	works lb.	.23	—
Carbonate basic, cake bbls.,	works lb	No prices.	
Hydride, cns., works	lb.	7.25	11.50
Nitrate, dms., ex whse	lb.	4.50	7.00
Oxide 98½-99% white grd., bbls. or bgs., works	lb.	1.50	—
lump electric-fused, bgs., c.l., works	lb.	.44	—
5 tons, works	lb.	.44½-	—
1 ton to 9,999 lbs., works	lb.	.45	—
500 lbs. to 1,999 lbs., works	lb.	.45½-	—
lump, electric-fused, bgs., less than 500 lbs., works	lb.	.48	—
milled, electric-fused, bgs., c.l., works	lb.	.59	—
5 tons, works	lb.	.59½-	—
1 ton to 9,999 lbs., works	lb.	.60	—
500 lbs. to 1,999 lbs., works	lb.	.60½-	—
less than 500 lbs., works	lb.	.63	—
Oxychloride, cryst., ctns., 5 tons, works	lb.	.32¼-	—

Dr. C. A. Thomas Wins

—Continued from page 5

leadership in both the profession and industry of chemistry.

Dr. Thomas is the second Monsanto man to be recognized by the award of the Perkin medal. Gaston du Bois, former vice-president of Monsanto, now retired, was similarly honored in 1944. Dr. Thomas has been president of Monsanto Chemical Company since May, 1951, having previously served the company as central research director, as technical director, as vice-president and director, as member, vice-chairman and chairman of the executive committee, and as executive vice-president, as well as member of other key committees.

Before coming to Monsanto in 1936, he had been president of Thomas & Hochwalt Laboratories, a Dayton, Ohio, consulting organization that grew out of his earlier work with General Motors Research Corporation and Ethyl Gasoline Corporation on anti-knock fuels and their commercial production. When Monsanto acquired Thomas & Hochwalt in 1936, Dr. Thomas and his colleagues joined the company as its central research organization.

Dr. Thomas was one of the key figures in the American atomic energy program and had charge of the final purification and metallurgy of plutonium, the synthetic ninety-fourth chemical element created in that development. His personal investigations and researches have dealt principally with synthetic organic chemistry. He studied and contributed to the chemistry of diolefins, olefins and aromatics hydrocarbons, plastics, and the synthesis of various aliphatic compounds.

In 1947, Dr. Thomas was awarded the Industrial Research Institute medal for his achievements in the administration of industrial research. A year later he was awarded the American Institute of Chemists' gold medal. And in 1952, he received the fifth Missouri honor award for distinguished service in engineering, presented by the University of Missouri. Dr. Thomas was president of ACS in 1948, and has been chairman of that organization's board of directors since January 1, 1950.

P.A.'s-Eye View

—Continued from page 5

pered by competitive conditions. Reported up were bolts, casein, coal, fasteners, files, glycerin, pig iron (lead up, then down), hardwoods, mercury, edible oils and tin. On the down side were alcohol, antimony, clothing, cotton, burlap and jute, corrugated containers, cornstarch, lead products, meat, corn, sugar, fuel oil, livestock, some lumber, molasses, linseed oil, tung oil, paint, rubber, soap, coarse textiles and zinc.

In short supply are some aluminum, broaches, diamond tools, transformers and controls, glycerin, nickel, pipe, rayon and wire. Easing up are containers, most electrical equipment, machine tools, lead, lumber, paper, tin, zinc, copper and steel.

Canada

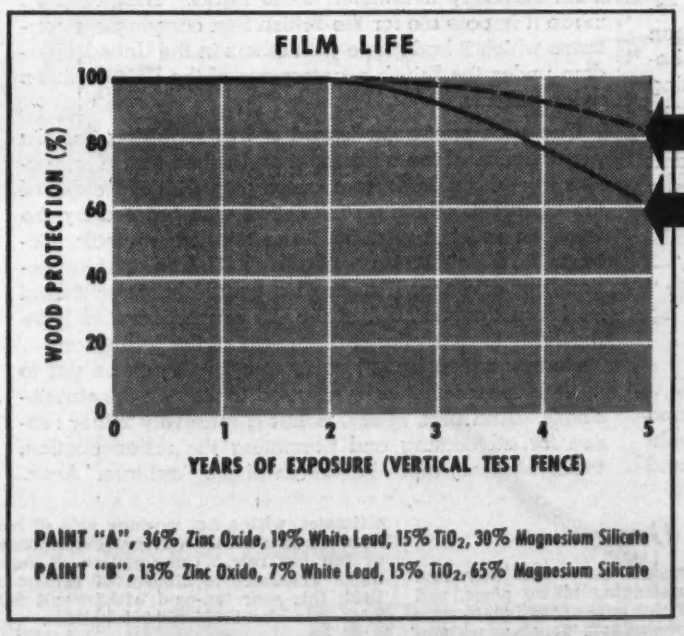
Canadian purchasing agents report industrial activity is holding up very well. Production is building up faster than in the United States. Order books are in about the same healthy condition. Prices are tending lower. Inventories are about the same as the United States. Employment is increasing, but at a slower pace than last month. Buying policy is being stretched out a little. With a balanced budget and a treasury surplus, Canadians anticipate tax reductions which will increase consumer spending power and accelerate industrial expansion.

HORSE HEAD PRODUCTS
PAINT PROGRESS
NEWS
A supplement to PAINT PROGRESS—the house organ issued by The New Jersey Zinc Company for over a decade to help the paint industry make better paint and promote paint sales.

How ZINC OXIDE Adds Extra Life To Modern Outside Paints

Much longer service life is one of the important reasons why leading outside house paints contain about 30% Zinc Oxide by weight of total pigment.

Any significant reduction in Zinc Oxide content shortens the film life, as indicated in the chart below.



PAINT "A", 36% Zinc Oxide, 19% White Lead, 15% TiO_2, 30% Magnesium Silicate
PAINT "B", 13% Zinc Oxide, 7% White Lead, 15% TiO_2, 65% Magnesium Silicate

Here's how normal Zinc Oxide content prolongs film life:

1. **Toughens the film**
   a. By formation of zinc soaps
   b. By mechanical reinforcement through unusual shapes of particles
2. **Protects the binder**
   a. By absorbing harmful ultraviolet rays of the sun
3. **Retards aging of binder**
   a. By neutralizing the acidic products formed by oxidation of the binder

Zinc Oxide plays a major part in the long life of self-cleansing house paints.

In a typical test (left) of 2-coat self-primed paint systems on new wood, Paint "A" with 36% Zinc Oxide weathered by gradual chalking to a good repaint surface after about 4 years. This compares with approximately 3 years for Paint "B" with 13% Zinc Oxide.

Our experience indicates that 3 years' service on this test fence is equivalent to about 5 years on houses in the same vicinity.

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Directed 1900-1942, by Harry J. Schnell
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It's an OPS Habit

"It is anybody's guess," it was said in these columns August 18, "why the director of the Office of Price Stabilization quit that job some ten days ago. One thing can be said: he never did like the fact that he had no adequate law to enforce and no effective means of even bluffing at enforcement." In tendering his resignation to take effect November 30, the successor of that OPS head at least implied that that was the reason for his quitting. The law, he declared, should have a thorough overhauling, and it was readily to be inferred from between the lines of his comment that he did not mean the kind of overhauling that congress did on the law in its several essayings of its amending—not emending. In the words of the latest retiring OPS "head"(?), "the law does not impose a fair burden on everybody." There are many who will substitute "anybody" for the last word in that statement.

"I have a feeling," said the next ex-director of "price-stabilization," "that all I have been doing is signing price-increase orders which will lead to other cost increases leading to other requests for price increases, and I don't believe I am necessary to carry out that situation." Because of the heavy supplementary contribution of wage increases to the ascending spiral of costs and prices, nobody could put a stop to anything by way of any "price-controls" that could be contrived under the existing law.

The congressional examiners of defense production situations have praised price-controls for their "major" role in halting the wave of inflation—a couple of years ago. They admitted that the real effect of more recent operations could not easily be measured, but admitted that increased prices would not be blocked as consequences of increased demands.

Because some prices—not very many—are below ceilings—perhaps as much as others are above normal—many who are opposed to price-controls repeatedly declare that they are not necessary. It is difficult logically to deduce from that that the controls should be removed as those opponents desire and urge. The man who has no intention of smoking is not wrought up because there is a "No Smoking" sign nearby. The thing that peeves him is the great extent to which the regulation is utterly disregarded. It is the same with reference to those who know that the "law of supply and demand' is not the only motivating force in that elastic influence, the profit motive.

Once again, as was said August 18, the price-stabilization "experiment" is "headless, helpless, hopeless"—and the public, as usual, is "paying the freight." "'Tain't right; Magee."

Big Need for Emendment

Much talk there is these days about how this and that federal statute having to do with business should be amended or revoked. The controls of prices and wages get, perhaps, the most attention in that connection; but they are by no means the most deserving of the suggested attention. The order in which the many regulative and directive laws stand in respect of necessity of change is not definite. In every respect all laws are analyzed and evaluated from the point of view of the commentator. But, taking the imperatively demanded new, broad view of the world role of the United States, there is clear reason and much logic in the selection of the so-called "antitrust" laws for first place. The several, recent instances of a trend toward the internationalization of the application of those statutes emphasize that view. The wholly domestic aspects of their effects are no less significant.

It would require more than a five-foot bookshelf to accommodate the texts of judiciary decisions and comment on the "antitrust" laws and still more space for the utterances of the governmental agencies which have had to do with their enforcement over their period of fifty-odd years. And out of all that verbiage nobody can yet draw assurance that he knows even what the laws demand—to say nothing of what somebody's policy of their enforcement may encompass. The vagueness of the current attempt to lay those laws on all sorts of interests and activities of the duPont family and business is illustrative of that.

The so-called "oil cartel" action is more widely significant of witch-hunting policies which can be but jeopardizing to the role of the United States in today's disturbing world affairs. If the laws of the country permit, even encourage, suspicions and misconceptions to indicate to the world that the government of the United States is abandoning, or has abandoned, the nation's business interests in other lands, those interests will not long remain out of the hands of the predatory opportunists of so many of today's popular political ideologies. And it is clear that the prestige of this country in the eyes of the world is not helped by such an act of abandonment, especially, as it appears, much of what was done in the oil activities assailed had its beginning in governmental encouragement, more or less formally official, of the development of foreign oil resources by United States companies with the purpose of assuring an adequacy of supplies for the free world.

Carrying the laws of the United States into international areas can lead to what is, at least, embarrassing for those responsible for the existence of and actions under the laws. The earlier duPont case, in which a district court decision was given four months ago, is in point. That decision declared that an agreement of December 31, 1946, between the duPont company and the British Imperial Chemical Industries, Ltd., should be cancelled and terminated. Among the items of the agreement were rights in relation to the use of patents having to do with nylon. The termination of the agreement naturally terminated those rights. That, in turn, made it impossible for the British firm carrying out contracts which it had made with others in the United Kingdom under the British counterparts of the United States nylon patents.

One such contractor issued a writ requiring specific performance of the agreement and asked for an injunction to restrain I.C.I. from complying with the order of the US court. Such an injunction was granted by the vacation court August 13. The court of appeals, October 16, dismissed an appeal by I.C.I. from that injunction, but said that if steps of a penal character should be taken against I.C.I. in the US courts, it would have the right to apply for a discharge of the injunction.

No law which by enforcement opinion can be put to such purposes should be allowed to stay on the statute-books. And that, really, is but a relatively minor reason for advocating and promoting the rationalization, modernization, and elucidation of the "antitrust" laws.

OPD Forum

An Outlet for Individual Opinion

(Anonymous communications will not be recognized but a signer's name will be withheld at request.)

Tung Oil Production

The Editor,
OIL, PAINT AND DRUG REPORTER.
Sir:—

Recently the Department of Agriculture reported that its estimate of tung oil production from the 1952 crop would reach approximately 35,000,000 pounds. I am inclined to think that it is over optimistic, and that the total will be very substantially less.

Early in the season, after the crop had been set, I estimated that the crop would produce as much as 35,000,000 pounds of oil, but have revised my figures downward from time to time, because of the fact that we have suffered a very severe drought during the months of August and September, at which time the oil was forming. It was also observed during the season that the fruit did not appear to be attaining the size that it usually did, and a recent trip through a substantial part of the tung belt would indicate that the fruit is abnormally small in size this year.

While I would hesitate to make a guess at this point, I do question very much if our total oil production from the 1952 crop will reach 30,000,000 pounds.

Harvesting is well under way and the weather has been ideal. However, additional storage and drying facilities, much of it on the plantation, indicates that much of the crop will not move to the mills as rapidly as usual.

Most of the mills are now crushing, but very little oil has reached the market and it is my impression, gained on my recent trip, that 1952 crop oil will move to market much more slowly than it usually has in the past. The mills have substantial storage capacity and are putting in additional capacity, which means that the oil simply does not have to be marketed quickly and that it can move in a more orderly fashion.

Poplarville, Miss. R. R. BECKE,
Secretary-Treasurer,
American Tung Oil Association.

Washington Talks It Over

—Continued from page 5

teen months of its operations. Air force rocket expenditures and napalm bomb tonnage have far exceeded World War II totals.

Alcohol Tax Cut to Be Asked

The whiskey industry is preparing to assault congress when it starts up next January with demands for a reduction in the present exorbitant taxes on drinking alcohol. The liquor tax presently amounts to $10.50 a gallon. The industry wants it reduced to at least $6 a gallon.

The tavernmen recently expresed considerable concern over the increased amount of bootlegging taking place, and claim that the high rate of tax is the cause of it. The present tax, they say without much argument, is inflating the price of liquor to a level beyond the means of many consumers, creating a prohibition by taxation and an actual and vast potential market for illicit liquor.

They point out that actual receipts for the first full year following imposition of the last tax increase of $1.50 per gallon on November 1, 1951, are running some $180,000,000 below original government estimates, with a net revenue gain of less than one percent on a 17 percent increase in the tax rate. Consumption of legal liquor amounted to 210,000,000 gallons in 1946; this year tax-paid withdrawals will total only about 156,000,000 gallons.

Industry-Wide Bargaining

The possibility that congress might amend the Taft-Hartley law to do away with industry-wide bargaining is not entirely remote. It is more than just a probability that legislation with this end in view will be introduced early in the session, and there is an outside chance that it may even be pushed through.

Much depends upon how the labor unions conduct themselves. The long steel strike and the short-lived coal strike has added to a feeling among large areas of the public that industry-wide bargaining be made unlawful or that the unions be made subject to the provisions of the Sherman and Clayton antitrust acts. The business organizations can be expected to be pushing for such legislation at the first opportunity.

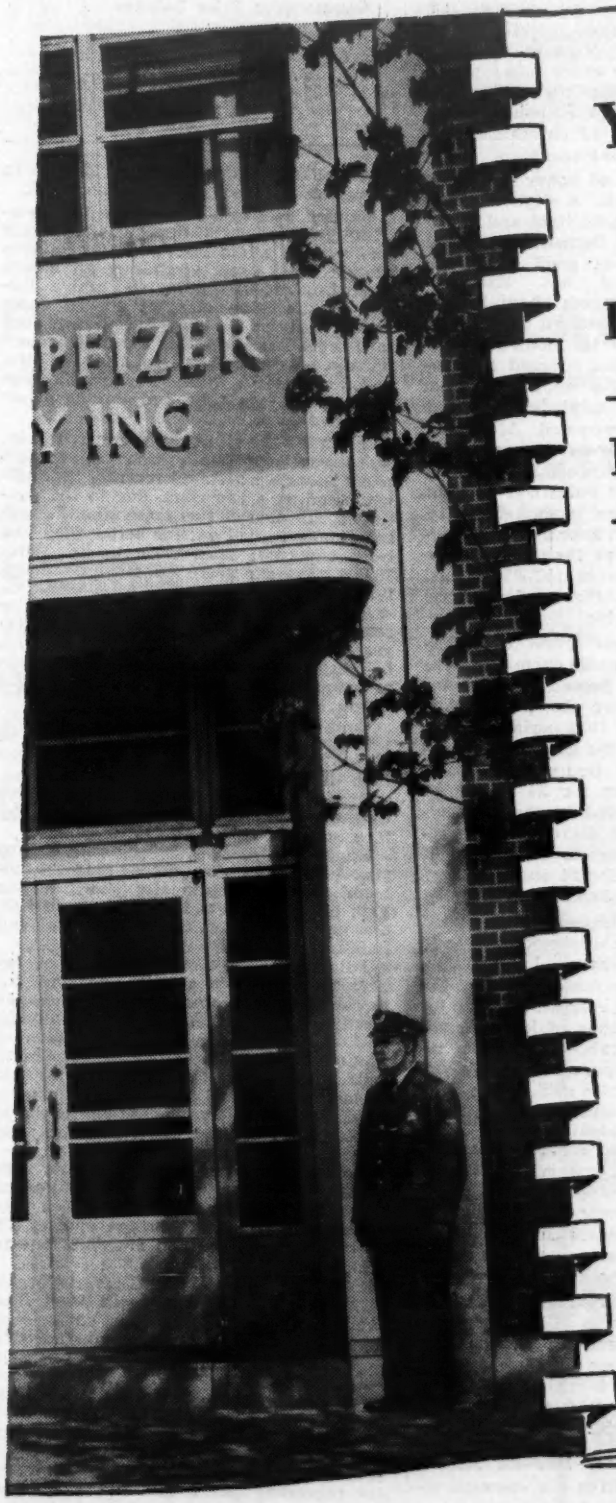
Once the movement gets started it might not be difficult to keep it rolling. It probably has been forgotten by many, but congress came within a few votes of branding industry-wide bargaining illegal when it passed the Taft-Hartley act. The house voted heavily in favor of such a ban, but it was dropped in conference in some behind-the-scenes trading on the various features of the bill.

RFC Gets History Lesson

Congressman Oakley Hunter of California, who believes in keeping his constituents enlightened on doings of the government and some of its peculiarities, ran across the following amusing incident the other day, and duly reported it in his weekly clipsheet to his voters:—

"A New Orleans businessman seeking an RFC loan was recently told that the loan would be granted if he could prove satisfactory title to property offered as collateral. After three months, he was able to show an abstract dating back to 1803. Still, the RFC was not satisfied. They complimented him on his fine work, but insisted that the title must be cleared back farther than 1803. Angered, he fired the RFC a stinging letter, which read something like this:—

"I was unaware that any educated man in the world failed to know that Louisiana was purchased from France in 1803. The title to the land was acquired by France by right of conquest from Spain, who came into possession by right of discovery made in 1492 by a sailor named Christopher Columbus, who had been commissioned for the job by the reigning monarch, Isabella. The queen, being a pious woman and almost as careful about titles as the RFC, secured the blessing of the Pope on the enterprise before she sold her jewels to finance the trip. The Pope was the representative of the good Lord who, it is commonly accepted, made the world, including that part of Louisiana in question—and I hope you are satisfied!"



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B_2 Riboflavin U. S. P.	Very stable towards heat and oxidation, but sensitive to reducing agents. In neutral or strongly acid solutions, it is very stable towards heat but is rapidly destroyed by it in alkaline solution.
Calcium Pantothenate	In the dry form, it is stable in air and to light, but is slightly hygroscopic in an excessively humid atmosphere. In solution, it is very sensitive to heat. When excessively heated in the presence of alkali or acid, it is decomposed.
Niacin U. S. P. **Niacinamide U. S. P.**	Niacin and Niacinamide are the most stable members of the B Complex in both dry preparations and aqueous solutions. Both are readily soluble in water.
B_6 Pyridoxine Hydrochloride	Reasonably stable to heat and air, but is affected by light. In aqueous solutions, it is most stable below a pH of 5.0.
B_{12} Oral Grade Solids	A free-flowing powder of uniform bulk, non-hygroscopic and stable in air of average humidity. Contains 500 micrograms of B_{12} activity per gram.
B_{12} Crystalline U. S. P. **Crystalline 0.1% Trituration with Sodium Chloride, Mannitol or Dicalcium Phosphate**	The Crystalline U.S.P. material is primarily for parenteral and oral solutions. The fine particle size of the Triturations permits better distribution of B_{12} in tablets and capsules.

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Heavy Chemicals

Chemical index advanced to 95.62 last week from 95.44 in the preceding period. Quicksilver prices were advanced sharply on spot as a result of a definitely tight supply and a moderate increase in demand. Lead metal declined slightly under a relaxation in the buying movement and lower prices for imported material. OPS authorized a ceiling price advance in chromium metal. The order raises prices 3 cents per pound for each pound of chrome contained in high carbon products and 4 cents a pound of chromium contained in low carbon materials.

Tonnage shipments of heavy chemicals did not gain last week. A slight slowing down in the call for both light and dense soda ash was noted. Demand for liquid caustic soda continued good while the dry forms attracted less attention. Chlorine closed the month about in balance. The buying movement in calcium chloride lost some of its momentum indicating that users had covered requirements temporarily. No improvement in supplies for nickel sulphate or other nickel salts could be recorded. Aluminum chloride found a steady outlet mostly for chemical use. Copper sulphate remained in active demand for industrial use but slow for agriculture and export. Competitive influences featured l.c.l. lots of glacial acetic acid although the tankcar price was unchanged. Muriatic acid still leaned toward the tight side. Plenty of sulphuric acid continued available.

Domestic production levels of industrially important inorganic chemicals were generally higher for September than for August, 1952, and were also higher than for the corresponding 1951 period, according to the Bureau of the Census. In comparison with August figures, September production was larger for 34 of the 47 chemicals now included in the Bureau's monthly survey while decreases were reported for 10. Increases from September, 1951, were reported for 24 and decreases were shown for 19 chemicals.

All-time monthly highs were reported in September for phosphoric acid and sodium tripolyphosphate. In addition, September production was higher than the amounts produced in August, 1952, or for the corresponding period of last year for the following chemicals:—ammonium nitrate, ammonium sulphate, calcium phosphate (dibasic), muriatic acid, nitric acid, sodium bichromate and chromate, sodium silicate, and sulphuric acid. The quantities of activated carbon, potassium hydroxide, soda ash, monosodium phosphate, sodium metaphosphate, sulphur dioxide, and zinc chromate produced in September, 1952, were less than the amounts reported for the previous month or for the corresponding month of last year.

Paper production based on a percentage of six-day capacity was 91.3 percent for the week ending November 22, according to the American Paper anl Pulp Association. This compared with 91.4 in the preceding week and 94.9 for the corresponding week in 1951.

Aluminum Chloride—Demand holding steady particularly from the chemical industry where it is used extensively as a catalyst. Production of anhydrous during September amounted to 2,225 tons, compared with 2,110 in August and 3,080 tons in September last year. Output of liquid and crystal in September was placed at 1,740 tons, against a revised total of 1,521 in the preceding month and 1,300 tons in September, 1951.

Calcium Chloride — Buying interest slowed down at the close of the month indicating users had sufficient stocks to cover the initial snowfall. Stocks were adequate to meet requirements.

Carbon Dioxide—Production showed a seasonal falling off in September with production of liquid and gas down to 13,040 tons, against 14,376 in August and 15,167 in September 1951. Output of solid, dry ice in September was 52,371 tons, compared with a revised total of 65,015 in the preceding month and 48,536 tons in September last year.

Chlorine—Demand was sufficiently active to tighten spot stocks at intervals during the past month but supply and demand appeared to be in balance at the close. Production of chlorine gas during September amounted to 209,966 tons, compared with a revised total of 207,964 in August and 212,083 in September 1951.

Copper Sulphate—Aside from a relatively good industrial demand, the market was a quiet affair last week. The citrus growers held back purchasing all month and while export inquiry was active during most of November, it slowed down substantially at the close because licensed sales were leveled off for the fourth quarter and have not been issued for the first quarter of 1953. There was no shortage of stocks at any time and former prices remained firm.

Regarding the situation in Great Britain, the chairman of the British Copper Sulphate Association stated recently that notwithstanding a bad start, due to the continued shortage of raw materials, the season finally turned out far better than had been expected; sales were up by about 16,000 tons and were an all-time record for the Association.

Production during the first half of the seasonal year was down on the previous year, but after supplies of raw materials had eased in the New Year, output was raised and by the end of July the total was up on the previous season.

Copper continued to rise during the year and, consequently at the end of the season the price of sulphate was higher than it had been. Generally speaking, such a high price for copper sulphate is detrimental to its use, particularly by farmers.

Exports were about 500 tons up on last year—45,237 tons against 44,764—the demand being exceptionally good despite high prices. Home sales were also higher, due equally to increased agricultural and industrial use.

Potash, Caustic—Aside from temporary periods of spotty activity demand for liquid over the past month averaged steady. The amount produced during September was placed at 5,662 tons of liquid including 1,548 tons evaporated to solid, compared with 5,925 tons of liquid including a revised total to 1,242 tons of solid in August. Production of liquid in September last year was 5,946, the solid content was not available.

Potassium Chlorate—Match plants were occasional buyers but there was no unusual activity to report. September production amounted to 736 tons, against 426 in the preceding month and 716 tons in September 1951.

Salt Cake—Supply not excessive at present. Byproduct output still down. September production of crude commercial amounted to 53,409 tons, compared with 51,377 in August and 62,469 tons in September last year.

Soda Ash—Industrial demand for light ash sustained about at its former level. Shipments of dense ash off slightly. September production of finished light ash placed at 192,847 tons, against 194,620 in the preceding month and 209,645 tons in September 1951. Output of finished dense ash in September amounted to 121,710 tons compared with 133,341 in August and 140,547 tons in September last year. Production of natural during September was 11,424 tons, against 11,188 in August and 10,171 tons in September 1951.

Soda, Caustic—Shipments of liquid have averaged about steady during the past month. The call for the dry forms turned spotty during the last two weeks. Supplies at all times remained adequate. Production of liquid by the electrolytic process during September amounted to 204,110 tons including 21,911 tons of solid, compared with a revised total of 202,375 tons of liquid including 23,363 tons of solid in August and 207,710 tons of liquid including 41,022 tons of solid in September 1951. September output by the lime-soda process showed 41,319 tons of liquid including 9,248 tons of solid, against 40,346 tons of liquid containing 9,510 tons of solid in the preceding month and 52,017 tons of liquid including 13,301 tons of solid in September 1951.

Sodium Bicarbonate—Supply position continued comfortable throughout the past month. September production of refined was placed at 11,424 tons, compared with

For Late Market Developments, See Page 4

Market Trends

Prices Advanced
Quicksilver, $6 per flask.

Prices Reduced
Lead metal, ¼c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
95.62	95.44	95.13	97.29

(*For Current Prices see Page 9*)

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We do not think of Management as the head, heart or a separate section of our organization body. It is an indivisible life-stream that runs through the the entire endeavor—intimately working with and nurturing the farthest flung element—concerned with the youngest representative on the road, the smallest customer and the lowliest employee. Its one aim—quality of product and good service.

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11,188 in August and 10,171 tons in September a year ago.

Sodium Phosphate—Tripoly output in September amounted to 38,744 tons, the highest monthly total ever recorded. The amount was 38,744 tons, compared wih 36,582 in August and 28,728 tons in September 1951. September output of acid pyro was 902 tons, against 893 in the preceding month and 1,016 in September last year. Tetra production recorded 7,144 tons in September, compared with 6,287 in August and 5,978 tons in Sept. 1951.

Sodium Silicate—Supply situation remained comfortable. September production, including soluble silicate glass, liquid and solid anhydrous, amounted to 44,948 tons, compared with 35,521 in August and 42,666 tons in September 1951.

Sodium Sulphate—Production was not far out of line with that of the previous year. The September total of anhydrous refined was 17,417 tons, compared with 16,112 in August and 17,781 tons in September 1951.

Acids

Acetic—Slight increase in inquiry for glacial appeared to be holding. While the l.c.l. market has assumed a more competitive position, no change has been announced in the tankcar price to date. Stocks have continued adequate to meet the current extent of consuming demand.

Hydrofluoric—Demand is running about flush with current production. During September 3,641 tons of anyhydrous and technical were made. August output amounted to 3,612 tons and in September last year 3,550 tons were produced.

Muriatic—Maintained a tighter supply condition than the other acids. September production showed 56,865 tons including 13,684 tons made from salt and acid, 12,150 from chlorine and hydrogen and 31,000 tons from byproduct and other sources. The August total was revised to 54,462 tons and in September last year output amounted to 56,881 tons.

Nitric—September production increased rather substantially. The total stood at 134,588 tons, compared with 128,886 in August and 124,304 for September 1951.

Sulphuric—Demand is described as good but not urgent, while the available supply continued adequate. September production was placed at 1,079,618 tons gross, in cluding 213,859 tons made by the chamber process and 865,759 tons by the contact process. The August total was revised to 1,066,593 tons and in September last year the total amounted to 1,046,075 tons.

Nonferrous Metals

Aluminum—Production is increasing. Last week a new plant at Rockdale, Texas, began operation placing the first of four potlines into production. A second potline will be completed and ready for production early next month. The third and fourth units are scheduled for completion next spring but will not begin production until the fall of 1953 when a new power plant will be ready. When the plant is in full operation, it will have a capacity of about 170,000,000 pounds of aluminum a year and will be the first aluminum smelter in the nation to use electric power generated by burning lignite.

Chromite—Consumption of chromium products Ferrochromium, briquets, metal, Chrom-X, Chrom Sil-X, and low carbon ferrochromium silicon), regained most of the loss during the past two months, and totaled 18,836 short tons in August. Producers' stocks of the above products decreased only slightly from the previous month. Imports of chromite into the United States during August totaled 136,753 short tons (122,101 long tons), 3 percent above the July imports; metallurgical and refractory grades increased while the chemical grade was below July. Of the 105,617 short tons (94,301 long tons) metallurgical ore, Turkey and Southern Rhodesia supplied 63 percent, the Philippines and the Union of South Africa 19 percent, and Cuba, Yugoslavia, New Caledonia, Sierra Leone, and Pakistan supplied the remaining 18 percent. The refractory ore (19,296 short tons, 17,229 long tons) was mainly from the Philippines (74 percent), the Union of South Africa and Southern Rhodesia supplying the remainder of 26 percent. The chemical ore, all from the Union of South Africa, totaled 11,839 short tons (10,571 long tons) and was 20 percent below July imports.

Lead—Priced lower at 14c. per pound New York and at 13.80c. St. Louis. The downward revision was attributed to relaxation of domestic demand and lower prices named for foreign metal. The mar-

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Becco's New President

Dr. Max E. Bretschger, formerly vice-president of Buffalo Electro-Chemical Company, Buffalo, N. Y., has been elected president. Dr. Bretschger fills the vacancy in Becco, a subsidiary of Food Machinery & Chemical Corporation, left by the death of the late Charles A. Buerk. Frederick A. Gilbert, former manager of Becco's Vancouver, Wash., plant, has been elected a vice-president, with headquarters in Buffalo. Charles J. Kellogg, former comptroller and secretary, has been elected secretary-treasurer, and George G. Crewson, director of engineering, has been named to the board.

Dufault to Leave DuPont; Cochrane Named Successor

Roland H. Dufault, for the past twenty years manager of the New York district sales office of the electrochemicals department of E. I. duPont de Nemours & Co., Wilmington, Del., will retire on January 1, 1953, the company has announced.

Succeeding him will be Reynolds C. Cochrane, who has been assistant manager of the New York office since 1949. At the same time the company announced that Victor B. Sarkissian, vinyl products sales manager, will be transferred to New York as assistant district manager, succeeding Mr. Cochrane.

Olin Appoints Ostberg

Ralph A. Ostberg has been named assistant to F. S. Elfred, executive vice-president of Olin Industries, Inc., East Alton, Ill. Mr. Ostberg, formerly president and general manager of the Edward Ermold Company, New York, machinery manufacturers, has served as industrial and management consultant to various industries. He has assumed his post with Olin, and is making his headquarters in East Alton.

ket appeared fairly steady at the lower level.

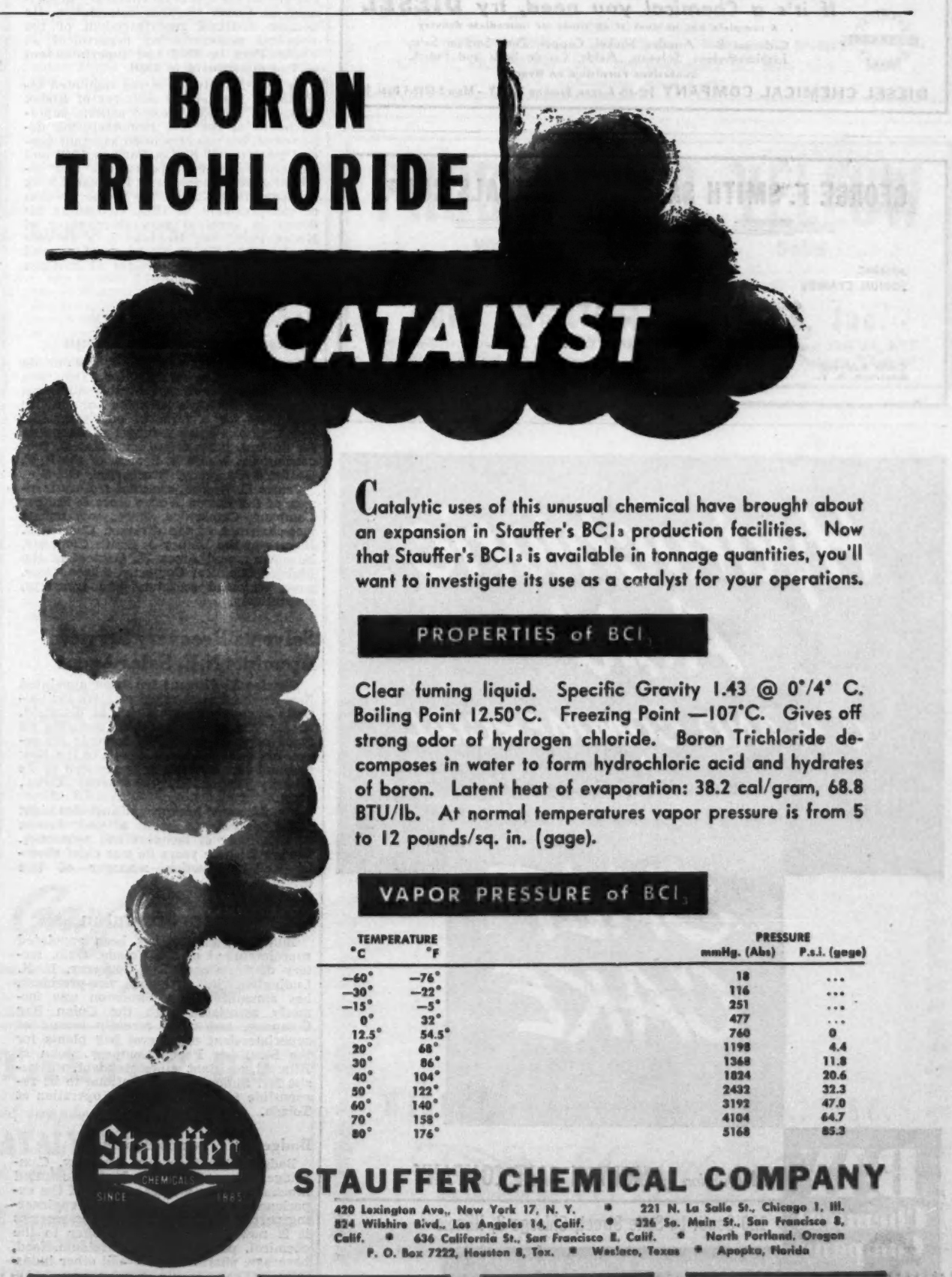
Quicksilver — Following the stronger tone noted in our previous report, the spot market advanced sharply last week. At the close suppliers named $211 to $213 per flask, depending upon quality. Foreign material for March shipment was offered at $203 subject to export license.

Output of quicksilver in the third quarter of 1952 at 3,320 flasks, although not greatly in excess of the preceding 3 quarters, was the largest since 1949, according to the Bureau of Mines. Consumption at 13,200 flasks was 35 percent above the first 2 quarters of 1952 chiefly because 2 new chlorine and caustic soda plants using mercury cells began production in July to September. Another, larger, installation was scheduled to begin in the final quarter of 1952. Imports fell below other quarters since April-June 1951 but could not be considered small from a historical viewpoint. The total for 1952 doubtless will rank among the highest annual quantities ever received. The new chlorine and caustic soda plants are at McIntosh, Ala., and Plymouth, N. C. General imports of mercury at 10,919 flasks dropped 33 percent in the third quarter and were at the lowest quarterly rate since the second quarter of 1951. Of the total receipts Italy supplied 39 percent, Yugoslavia 23, Mexico 21, and Spain 17, respectively. Supplies from all sources, except Mexico, were less than in the preceding quarter.

Tin—Consumption in August increased 74 percent with tin mills operating at a high rate according to the Bureau of Mines, United States Department of the Interior. The use of tin in August was 6,347 long tons (4,198 of primary and 2,149 of secondary) compared with 3,647 long tons (revised) in July (1,719 of primary and 1,928 of secondary).

Tin stocks held by the Government (RFC) and industry—comprising pig tin, tin in ore, raw materials in process, and other, but excluding the strategic stockpile and a substantial tonnage of metal afloat enroute to the United States, decreased from 65,252 (revised) long tons August 1 to 62,411 tons on August 31. At the close of the month stocks of pig tin were 25,353 long tons—6,091 tons lower than at the beginning of the month. Inventories of tin in ores increased 3,644 long tons and totaled 26,476 tons August 31. The strike at the Texas City tin smelter was settled and workers returned to their jobs on August 19.

Imports of metallic tin were 8,501 long tons in August (6,619 in July). Receipts of ore in terms of contained metal amounted to 2,378 long tons in August (5,481 tons in July). Ore and metal imports were augmented by 930 long tons (gross weight—chief value tin) of alloys brought into the country in August, mainly from Western Germany in the form of a 94-percent tin alloy. Imports for consumption of this class were 397 tons in January, 753 in February, 1,182 in March, 578 in April, 1,261 (revised) in May, 499 in June and 646 in July.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−15° −5° 251 ...
0° 32° 477 ...
12.5° 54.5° 760 0
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Flint, Eastman Kodak Vice-President, to Retire

Charles K. Flint will retire from active service as an Eastman Kodak Company vice-president and general manager of the company's Kodak Park Works, Rochester, N. Y., on January 1, 1953, it has been announced. Ivar N. Hultman, company vice-president and assistant general manager at Kodak Park, will succeed Mr. Flint as general manager.

Mr. Flint has been with Eastman since 1911 when he helped supervise construction of Kodak office tower. He celebrated his forty-first anniversary with the company last month. He served as an engineer in charge of construction of the Canadian Kodak plant in Toronto in 1914, and the following year he was appointed superintendent of the engineering and maintenance division at Kodak Park. Mr. Flint rose to the position of assistant manager of Kodak Park in 1929 and became general manager in 1936. He was elected vice-president of the company in 1941. Elected a Kodak director in January, 1945, he will continue in that capacity.

Mr. Hultman has been associated with Kodak since 1919 when he began as a chemist in the synthetic chemistry department of Kodak research laboratories. He became assistant superintendent of the chemical manufacturing department at Kodak Park in 1928 and superintendent of that department in 1930.

In 1934 Mr. Hultman was appointed assistant to the general manager of Kodak Park, and in 1939 became general superintendent of the film manufacturing department. He was appointed assistant general manager of Kodak Park in 1942 and elected assistant vice-president and assistant general manager of Eastman Kodak Company in 1943. He rose to the position of vice-president in 1945, continuing his duties as assistant general manager of Kodak Park. Mr. Hultman is a director of Canadian Kodak Company, Ltd., and vice-president and a director of Eastman Gelatine Corporation.

ACS Rubber Chemistry Division Headed by Byam

Seward G. Byam, of E. I. duPont de Nemours & Co., Wilmington, Del., has been elected chairman of the American Chemical Society's division of rubber chemistry for a term of one year. Mr. Byam, who is sales manager of neoprene for duPont, takes office immediately, succeeding Dr. Waldo L. Semon, of the B. F. Goodrich Company, Brecksville, Ohio.

James C. Walton, assistant factory manager of the Boston Woven Hose & Rubber Company, Cambridge, Mass., was named vice-chairman of the division. Charles R. Haynes of the Binney & Smith Company, New York, and Amos W. Oakleaf of the Phillips Chemical Company, Akron, Ohio, were reelected secretary and treasurer, respectively.

Solvents Recovery Service Appoints N.E. Sales Agent

Charles S. Altemus has been appointed New England sales representative for Solvents Recovery Service, Inc., of Westfield, N. J. The company, which redistills all types of waste industrial solvents for reuse, has assigned Mr. Altemus to the New England territory which is serviced by its recently expanded Thomaston, Conn., plant.

Mr. Altemus' background includes eight years' experience with a well known manufacturer of lacquers and synthetics. During the war years he was chief chemist and production manager of this company.

Chase Names Simonton

Bud E. Simonton has been appointed superintendent of the Toledo, Ohio, factory of the Chase Bag Company, F. H. Ludington, jr., assistant vice-president, has announced. Mr. Simonton was formerly associated with the Union Bag Company, and more recently served as superintendent of several bag plants for the St. Regis Paper Company. John F. Hilarski, assistant superintendent, will assist Mr. Simonton and continue to be responsible for the textile bag operation at Toledo.

Badger Mfg. Issues Brochure

Badger Manufacturing Company, Cambridge, Mass., has issued an illustrated brochure giving a brief outline of the experience and background of its engineering personnel, and describing the services it is now in a position to offer to the chemical, petrochemical, petroleum, food, beverage, pharmaceutical and other industries. A copy of this booklet may be obtained by addressing a request to the company at 230 Bent street, Cambridge 41, or 60 East 42nd street, New York 17.

Becco Issues Peroxygen Data

Buffalo Electro-Chemical Company, Buffalo, N. Y., has issued an eleven page bulletin, No. 53, entitled "Treatment of Cellulose and Cellulose Derivatives With Peroxygen Compounds." Copies may be obtained by writing the company at Station B., Buffalo.

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CMP Regulation 1 Reprinted To Consolidate Amendments

As an aid to industry, the National Production Authority has reprinted CMP Regulation 1, combining in a single document all the amendments and directions to this regulation, which contains the basic rules of the Controlled Materials Plan.

The action, NPA said, represents the latest recodification of CMP Regulation 1. The last previous integration was made in November, 1951. While noting that no major revisions have been made in the regulation, NPA called attention to several minor changes:—

1. Producers of Class B products are no longer required to produce up to the limits of their authorized production schedules. This requirement now applies to producers of Class A products only.

2. Minimum mill quantities of aluminum controlled materials which may be ordered are now defined as the standard minimum quantities established by each mill after approval by NPA.

3. Direction 9 to CMP Regulation 1, which removed non-nickel bearing stainless steel from the list of controlled materials, was revoked. Its provisions are now incorporated in a footnote to Schedule 1 of the regulation.

4. Several other minor revisions have been made in Schedules I, III and IV of the regulation to reflect changes in other orders.

Renegotiation Rules Altered On Subcontracts Exemption

In an amendment to the renegotiation regulations made public recently by the Renegotiation Board, subcontracts will no longer automatically be exempted when the prime contracts to which they are related are exempted.

The change has been made in a section of the regulations which concerns the board's permission under the 1951 act to grant exemptions for certain types of contracts. Among such contracts are those of a secret nature, those in which contractual provisions are adequate to prevent excessive profits, and contracts where profits can be determined at the time the contract price is established.

Formerly, the regulations provided that subcontracts would be exempted when their related prime contracts were exempted, except in the case of subcontracts which came under prime and subcontracts performed outside the United States. The amendment which revises section 1455.7 of the regulations reserves for determination at the time of granting an exemption for a prime contract whether related subcontracts will also be exempted.

Empire Trust Co. Elects Two Chemical Dept. Heads

The Empire Trust Company, New York, has announced the elections of M. Stuart Roesler and Richard B. Schneider as vice-presidents, to head the bank's chemical department.

Mr. Roesler had been an assistant vice-president and Mr. Schneider chemical consultant. Mr. Roesler was previously with other New York banks. Mr. Schneider's prior connections included W. R. Grace & Co., Arthur D. Little, Inc., and Allied Chemical & Dye Corporation.

ACS Names Div. Heads

The American Chemical Society has named two division heads. Dr. Henry C. Marks, director of chemical research of the Wallace & Tiernan Company, Belleville, N. J., has been elected chairman of the division of water, sewage and sanitation chemistry. Dr. Kyle Ward, jr., head of the cellulose group at the Institute of Paper Chemistry, Appleton, Wisc., has been elected chairman of the division of cellulose chemistry.

Trade Briefs

Buffalo University's departments of chemistry and marketing are offering a graduate course in the evening session on chemical marketing under Dr. Frank P. Greenspan, of Buffalo Electro-Chemical Company.

L. F. Hickernell, chief engineer of Anaconda Wire & Cable Company, Hastings-on-Hudson, N. Y., has been elected a member of the board of directors of the American Institute of Electrical Engineers.

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Carbon Tetrachloride
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Drums

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Tankwagons

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Carboys

Muriatic Acid 20° & 22°
Carboys, Tankwagons, Tankcars

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Amer. Machine & Foundry Ends Pact With E.T. Oakes

The American Machine & Foundry Company, New York, has terminated its manufacturing and sales agreement on Oakes mixers with the E. T. Oakes Corporation "in view of plans for our future expansion of continuous processes in the food and industrial fields," it has been announced by F. R. Plum, divisional vice-president of AMF's bakery division.

The effective date of the agreement termination, said Mr. Plum, was October 31. The agreement was entered into by AMF and Oakes in October, 1948, whereby AMF was granted exclusive manufacturing and sales rights to the Oakes mixer in the United States and Canada with exception of sales to the confectionery industry, retained by the Oakes Corporation.

Dow Issues Three Bulletins

The Dow Chemical Company, Midland, Mich., has issued three new bulletins. They are entitled, "Dow Latexes for Latex Paints," "Dow Latex 744-B for Latex Paints" and "Ion Exclusion." They are available on request to the company.

In Cyanamid Technical Post

Dr. Donald L. Fuller has been named technical director of American Cyanamid Company's nitrogen products plant now under construction near New Orleans, La. Dr. Fuller joined Cyanamid in October after serving as associate director of the central research laboratories of General Aniline Film Corporation in Easton, Pa. He had been with that firm for nine years, and, earlier, was associated with Shell Development Company and Cyanamid. Michael A. Stimola has been named industrial relations director at New Orleans.

Chemicals Among Features Of British Industries Fair

Nearly 100 different industries will be represented at the British Industries Fair, scheduled for London and Birmingham, England, from April 27 to May 8, 1953. Displays of 2,500 exhibitors will be arranged in thirty groups of allied trades in three centers, with the groups in London including one devoted to chemicals, one to chemists' supplies and one to plastics.

The chemicals group will be broken down into the following:—Acids; fine, heavy, industrial, pharmaceutical, photographic and rubber chemicals; cleaning preparations, coaltar products and derivatives; drugs, dyes, essential oils, explosives, fertilizers, flavoring essences, foodstuff colors, insecticides, and solvents and plasticizers.

In the chemists' supplies group will be:—Cosmetics, toilet preparations and perfumery; domestic chemical products; druggists' sundries; hair waving appliances; pharmaceutical preparations; polishes and dressings; proprietary medicines; soaps and toilet cleansing preparations, and surgical dressings and adhesive plasters.

The plastics group will include:—Casein, extrusions, fabrications, laminated materials and mouldings, plant and moulds, thermoplastic materials, and thermosetting materials.

Varley Opens Hel-Mar, New Manufacturing Div.

James Varley & Sons, Inc., St. Louis, Mo., has announced the opening of its new manufacturing division, Hel-Mar, Inc., at 1945 North Columbia Boulevard, Portland, Ore. Production in the new plant will be under control of Dr. H. T. Schmitt, who was formerly in charge of production in the parent plant in St. Louis.

Harry Barger who has represented Varley on the west coast for several years will remain in charge of sales, it was reported. Complete manufacturing facilities have been installed in the Portland plant, as well as chemical and bacteriological laboratories. The new manufacturing division will serve Oregon, Washington, California, Montana and Idaho. Packaging facilities are also a part of the new plant's equipment for servicing of those customers who resell products under private brand names or who do not have facilities for packing in small containers, it was announced.

Trade Briefs

M. B. Nicholls, president of Nicholls Minerals Corporation, is leaving today on a business trip to Lima, Peru.

Robert M. Reininger has been elected executive vice-president of New York & Honduras Rosario Mining Company.

Phelps Dodge Refining Corporation has appointed the House of J. Hayden Twiss to handle its advertising, with William A. Smith as account executive.

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Agricultural Chemicals

Trade interest last week was focussed on an upward revision in coke-oven ammonium sulphate prices which producers have been allowed under supplementary regulation 13 of the GCPR. The supply position showed no sign of easment and it was said to be doubtful if a higher selling schedule would curtail demand. The superphosphate situation did not change materially. Available stocks continued o follow spotty lines with the major part of production heavily under contract. Demand for ammonia nitrate exceeded current output leaving the market position tight, and these same conditions prevailed in nitrogen solutions. It was stated the Japanese purchase of phosphate rock for shipment over the first quarter of 1953 had been completed. Domestic potassium muriate shipments have been fully normal except to the drought areas where the granular grade has slowed down slightly. Sodium nitrate supply has remained adequate to meet requirements.

Fertilizer tax tag sales and reports of fertilizer shipments in the 14 reporting states continue to mount toward an impressive record high in 1952, according to a compilation of reports received by The National Fertilizer Association. Reports of shipments and tag sales from 11 southern, 2 midwestern, and one far-west state indicate that the equivalent of 8,240,000 tons of fertilizer were sold in these states during the first eight months of this year, 660,000 tons more than the 7,580,000 tons sold in the like period a year ago.

Fertilizer Materials

Ammonium Nitrate—Production of original solution in September amounted to 119,337 tons including 100,477 tons of fertilizer grade and 18,860 of other grades. August output totaled 114,990 tons and in September last year 108,169 tons were produced, according to the Bureau of the Census.

Ammonium Sulphate—Coke-oven sulphate has been affected by the OPS order which permits producers to spread the 3.75 percent increase among their various products, subject to a maximum limit of 10 percent increase on any one ceiling price. Producers have been busy all week in working out a revision of prices. Some producers at Birmingham, Ala., have increased the price to $49.50 per ton.

Bone Meal—Moderate tonnage is moving for fertilizer use although demand is not unusually active. Sales of domestic have been consummated in the steamed grade at $75 per ton in bags, carlots works.

Castor Pomace—Any material available has been sold at $37.25 per ton, in bags, carlots works. Low production has kept offerings down.

Dried Blood—Occasional sales were recorded at $7.75 per unit of ammonia New York and at $8 Chicago. Demand and offerings both limited.

Fish Meal—September production of fish meal and scrap amounted to 26,659 tons, compared with 22,425 for the same month in 1951, according to the Department of the Interior. This represents an increase of 19 percent or 4,234 tons. Production for 9 months ending September 30 was placed at 160,909 tons, against 155,714 for the corresponding period last year. September output of menhaden meal was 20,720 tons, compared with 16,238 in September 1951. Production from January 1 through September amounted to 160,909 tons, against 155,714 for the same time in 1951.

Hoof Meal—Market conditions, while quiet, remained steady. Sellers maintained the former price of $7 per unit of ammonia Chicago basis.

Phosphate Rock—Firm with possibilities of a higher price level being established. A survey of costs and earnings in the phosphate rock industry, to determine whether the industry qualifies for an increase in its ceiling price under the so-called industry earnings standard, is being conducted by the Office of Price Stabilization. According to trade reports, the Japanese purchase for shipment during the first quarter of 1953 has been completed. Estimates place the tonnage involved at 130,000.

Potassium Muriate—Granular grade shipments have slowed down slightly to the drought areas, otherwise domestic shipments are fully normal.

The current West German output of 1,200,000 tons of potash is considered a substantial gain over that in the prewar period, when about 25 percent of the 1,800,000 metric tons produced annually came from what is now the Federal Republic. Production, consumption, and stocks of potash increased in the fiscal year 1951-52. However, domestic sales were not so high as anticipated, principally because of price and freight increases, nor did exports reach the estimated figure, and stocks, especially of high-percentage potassic fertilizers, accumulated.

Market Trends

Prices Advanced
None

Prices Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
113.53	117.53	113.52	113.31

(For Current Prices see Page 9)

Superphosphate—Domestic production of superphosphate during the month of September totaled 738,095 short tons for normal, 72,333 tons for concentrated, and 6,211 tons for wet-base goods, according to the Bureau of the Census, Department of Commerce. When compared with the amounts produced last month, these figures represent decreases of 3 percent for normal and 5 percent for concentrated, but show gains of 11 and 28 percent, respectively, over the September 1951 output. Quantities produced for the period January through September were 4 percent and 17 percent greater, respectively, for normal and concentrated, while the output of wet-base goods was 2 percent smaller in 1952 than in 1951.

Shipments of normal and concentrated superphosphate were respectively 1 percent and 13 percent less than the amounts shipped last month. Quantities shipped during the period January through September 1952 remained unchanged for normal, increased 19 percent for concentrated, and declined 36 percent for wet-base goods from the amounts shipped during the corresponding period of 1951. Stocks on hand decreased slightly during the month for the normal and concentrated grades, while inventories held on September 30, 1952, were 14 percent higher for normal, 9 percent higher for concentrated, and 13 percent lower for wet-base goods than the amounts held on September 30, 1951.The amount of normal held amounted to 1,215,698 tons on September 30, stocks of triple were 71,821 tons and wet-base 9,304 tons.

Los Angeles Market

Los Angeles.—The local market continued dull which was considered normal for this present off-season. Buying was slow although advanced sales for December and January shipments of calcium nitrate were reported good. No announcement has been made to date for new price structure on Canadian materials to cover the first six months of 1953. With no application of superphosphate being made, this material also remains slow. Fish meal continued in light supply with quotations at ceiling plus sack cost. Ruling prices were:—

Ammonium nitrate—$85.30 per ton, domestic, f.o.b. Los Angeles. $86.84 per ton for Canadian material, f.o.b. Los Angeles.

Ammonium phosphate—$76.14 per ton in bags, 16/20 grades, f.o.b. Los Angeles. $100.64 per ton in bags, 11/48 grade, f.o.b. Los Angeles. Both Canadian material.

Ammonium sulphate—$54.87 per ton in bags, f.o.b. Los Angeles. $3 less in bulk. Canadian material same.

Blood meal—$5.75-$6 per unit of ammonia at source.

Bone meal—$69-$75 per ton, imported, 1/65 meal, c.i.f., Los Angeles Harbor. Domestic—$90-$92 per ton, f.o.b. Los Angeles.

Calcium nitrate—$48 per ton, 15½ percent nitrogen, c.i.f., Los Angeles Harbor.

Pesticides

Market conditions have continued quiet with the trade endeavoring to get a clearer idea of the extent of inventories. The first half of the year showed a higher rate of output than a year earlier while the drought during the Summer months greatly reduced the intensity of pest infestation and the amount of material used was down substantially from 1951. As a result sizable stocks of several important insecticides and fungicides accumulated and in some instances exerted a reducing influence on production. At present there appears to be a little steadier feeling developing in DDT, although there is not enough activity to actually test prices.

The Department of Agriculture stated that boll weevils may be less numerous in southern cotton fields next year. A recent check by department entomologists in Madison Parish, La., showed fewer of the pests entering hibernation there than in any fall since 1947.

For Late Market Developments, See Page 4

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ACS Petroleum Chemistry Div. Chairmanship to Lyman

Arthur L. Lyman, vice-president and director of laboratories of the California Research Corporation, Richmond, Calif., has been elected chairman of the American Chemical Society's division of petroleum chemistry for 1953. He succeeds Frederick E. Frey, assistant director of research of the Phillips Petroleum Company, Bartlesville, Okla.

Prof. Frederick D. Rossini, of the Carnegie Institute of Technology, was chosen chairman-elect, and Dr. Alex G. Oblad, director of chemical research of the Houdry Process Corporation, Marcus Hook, Pa., was named secretary.

Mr. Lyman joined the research and development department of the Standard Oil Company of California in 1924. He was appointed assistant manager of the Richmond laboratories in 1931 and manager in 1938. When the California Research Corporation was formed as the research subsidiary of the Standard Oil Company of California in 1944, he became a director of the organization. He was promoted to his present post in 1946.

Davies Adds Pearsall

Mason P. Pearsall has joined the Davies Nitrate Company, Inc., New York, as a member of the technical staff. Mr. Pearsall was formerly associated with the United States Rubber Company, the Keratene Company and the Delmar Company.

Carbide Issues New Data

The 1953 edition of the booklet, "Physical Properties of Synthetic Organic Chemicals," has just been issued by Carbide & Carbon Chemicals Company, a division of Union Carbide & Carbon Corporation, New York. The twenty-page booklet is issued annually as a guide for users of organic chemicals. This year for the first time the booklet includes a section on 56 new research chemicals available from Carbide & Carbon. Among them are synthetic alpha-picoline; diethoxy tetrahydrofuran, a source of succindialdehyde, and four new vinyl monomers.

The new edition presents data on more than 320 products. For easy reference, the chemicals are arranged by family groups. Condensed data on applications are presented and physical properties are given in tabular form. Copies may be obtained without charge from Carbide & Carbon at 30 East 42nd street, New York 17. Those interested are asked to write for the "P.P.S.O.C." Booklet F-6136.

J. T. Baker Issues Bulletins

Five new product data bulletins on reagent grade acetic, hydrochloric, nitric and sulphuric acids, and on ammonium hydroxide, are available from the J. T. Baker Chemical Co., Phillisburg, N. J. The bulletins contain information on specifications, common uses, and handling precautions and are available at no charge.

Sulphur Filter Booklet Offered

Reduction of impurities in sulphur used to produce sulphuric acid is the subject of an eight-page bulletin recently issued by Niagara Filter Corporation. Included in the booklet is a discussion of the problems of the sulphuric acid producer, and of the development of the sulphur filtration process. Illustrations show several typical filter installations, and case histories are given to show the results that this process has produced in the field. Twelve advantages over previous purifying methods are outlined with consequent increased production and lower costs. Copies may be obtained by writing the company at 3080 Main street, Buffalo 14, N. Y., and asking for Bulletin S-752.

Trade Briefs

William Kerber has resigned as chief of the iron and steel branch of the industrial materials and manufactured goods division of OPS.

Hammond Iron Works, Warren, Pa., has announced the acquisition of Keyes Tank Company, Provo, Utah, and Keyes Tank & Supply Company, Casper, Wyo.

Dr. Robert W. Merritt, assistant vice-president of National Starch Products, Inc., has returned from the International Plastics Meeting in Germany.

Penfield Manufacturing Company, Meriden, Conn., has added a new "Mono-Column Demineralizer" to its line of industrial demineralizing equipment.

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Textile and Leather Chemicals

Trading was fairly active for textile and leather chemicals last week. Consumers, however, continued to limit purchases to prompt needs, but there was a noticeable improvement in inquiry for requirements for early next year delivery. The general tone of the market was steady, and selling pressure to force sales at the expense of prices was lacking. The only price decline took place in egg yolk, which was reduced 3 cents per pound due to larger stocks and keen competition. Albumen was stronger and market tended higher as a result of increased cost of replacements.

Corn dextrin and starch moved in good volume against current orders. Moderate trading was reported in imported potato starch for shipment and on the spot at unchanged quotations. Domestic potato starch was scarce and the market was nominal. Mills in Maine were closed but were expected to start operations after January 1, depending upon the availability and the cost of culls. Offers of Idaho starch were limited, and the most of recent sales have taken place in the imported material.

Tanners confined interest in tanning material replacements to actual needs. Trading was spotty, and restricted to occasional lots for prompt shipment. Arrivals of foreign materials during the month against recent orders have replenished tanners inventories. Primary markets remained steady at former quotations.

Wool yarn production totaled 492,400,000 pounds for the nine months ending September, compared with 542,300,000 pounds during the same period last year, according to the Census Bureau. Carpet yarn output was 93,900,000 pounds, against 108,600,000 pounds a year ago, while other yarns totaled 398,500,000 pounds, against 433,700,000 pounds for the same time last year.

Wool consumption on woolen and worsted systems amounted to 334,100,000 pounds, scoured basis during January-September inclusive, compared with 380,200,000 pounds during the like period in 1951, according to the Census Bureau, while apparel class wool totaled 253,400,000 pounds, against 299,700,000 pounds for the same period last year. Apparel class wool consumption averaged 7,700,000 pounds weekly in September, against 7,600,000 pounds in August. The worsted system usage rose slightly to 4,500,000 pounds and woolen system consumption dropped to 3,200,000 pounds, while raw wool consumption averaged 10,300,000 pounds, weekly, some 4 percent above August.

Market Trends

Prices Advanced

None

Prices Reduced

Egg yolk, 3c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
100.97	100.97	100.64	101.14

(*For Current Prices see Page 9*)

Chemicals

Acetic Anhydride—Good demand was reported for delivery against former orders. New business was light, though inquiry was more active for early next years' needs. Quotations were without change.

Bichromates—Consumers interest was more active for future requirements and contracts were reported booked at prevailing prices for delivery during the first quarter of next year. Demand for spot delivery was light. Quotations were firm. Production of sodium bichromate and chromate in September was reported 7,424 tons, compared with 5,882 tons in August and 10,660 tons during September, last year, by the Census Bureau.

Sodium Acetate—Market was quiet and steady at current prices. Demand was spotty and limited to immediate requirements.

Sodium Hydrosulphite—Consumer demand was confined to withdrawals against former orders. Supplies were ample and offered at current prices. Production in September totaled 2,270 tons against 2,162 tons in August and 2,178 tons during September last year, according to the Census Bureau.

Sizing Materials

Corn Dextrin—Consumers continued to absorb a good volume for delivery against current orders. New business was spotty, for immediate needs. Prices were unchanged and steady. Gum was quoted at $8.95 per 100 pounds, paper bags, carlots, New York delivery; canary, $8.69; dark, $8.79, and white, $8.53, same basis. Less carlots were 15c. per 100 pounds more.

Corn Starch—While buying interest was confined to actual needs, deliveries against former orders were in active request. Quotations were held at former levels. Pearl was quoted at $7.14 per 100 pounds, paper bags, carlots, New York, and powder, $7.26, same basis. The visible corn supply was increased 6,986,000 bushels to 51,040,000 bushels for the week ended November 21, compared with 39,801,000 bushels for the corresponding week last year, according to the Chicago Board of Trade.

Egg Albumen—This market remained firm at the recent advance. Demand was fairly active for immediate requirements. Flake was maintained at $2.61 to $2.63 per pound, and powder at $2.65 to $2.67 per pound, according to quantity. Trading in technical was light, but prices were maintained at $1.03 to $1.08 per pound, as to quantity.

Egg Yolk—Consumers limited demand to actual requirements. Prices were easier and declined to $1.00 to $1.02 per pound, spot, depending upon quantity.

Potato Starch—Conditions in this market were without material change. Trading was confined to imported starch for shipment and on spot. Domestic stocks were low and entirely nominal. Shipments of Danish were maintained at 8.60c. per pound, carlots, exdock, duty paid and Dutch at 8.85c. to 8.90c. per pound, as to packing, same basis. Imported on spot ranged from 9½c. to 12c. per pound, exwarehouse, depending upon quantity. Production in Idaho was reported limited and quotations were nominal at 8½c. per pound, carlots, f.o.b. mills. Mills in Maine were shut down and were not expected to reopen until the turn of the year.

Rice Starch—Small lots were in fair request for spot delivery. Market was steady with the higher cost of replacements. Supplies on spot were quoted at 15c. to 17c. per pound, depending upon quantity.

Sago Flour—Quiet demand was noted for spot and shipment from primary markets. Raw was unchanged at 7¼c. per pound and refined, 8½c. to 9c. per pound, exwarehouse, as to quantity.

Tapioca Flour—This market was dull and featureless. Stocks on spot were nominal, ranging from 14c. to 16c. per pound, exwarehouse, as to seller, buyer and quantity. Offers from Brazil were unavailable and market there was merely nominal.

Tanning Materials

Chestnut Extract—Steady consuming demand continued to keep producers inventories low. Market was firm and quotably unchanged.

Cutch—Offers for shipment were limited and readily absorbed. Market was firm and unchanged at 8¼c. per pound, exdock, plus duty.

Mangrove Bark—Consuming inquiry has slackened, which recently eased the Ecuadorian grade for shipment, to $57.50 per ton, exdock. Colombian was unchanged at $60 per ton, same basis. African was held at $79 to $80 per ton, same basis.

Myrobalans—Trading was spotty and took place at prevailing prices. Ordinary JI's were quoted at $45 per ton, exdock; assorted at $48 per ton, and crushed, $65 to $66 per ton, same basis. Solid Indian extract, 53 percent tannin was available at 7c. per pound, exdock, plus duty.

Quebracho Extract—Buying interest was reported fairly active for replacements, though trading was limited to prompt shipment. Market remained steady and quotably unchanged. Solid ordinary was quoted at 11 31/64c. per pound, carlots, exdock, and clarified, 12 3/16c. same basis plus duty.

Sumac Leaf—Interest in this material continued inactive. Shipments were quoted nominally at $110 per ton, exdock.

Valonia—Consumer inquiry has slackened. Shipments, however were maintained at former levels, despite slow trading. Beards were quoted to $85 per ton, exdock and cups to $64 per ton, same basis. Extract was unchanged at 9½c. per pound, exdock, plus duty.

For Late Market Developments, See Page 4

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Coal Chemicals

The only price change reported in this market last week which affected the index of the market was an advance in denaturing pyridin. Up until press-time, there were no announcements of general revisions of price schedules which resulted from the recent amendment to S.R. 13, however one light oil producer announced a 10 percent advance in the Birmingham district, effective November 26.

It was said that producers were studying the changes in the regulation and the OPS announcement that producers of coal chemicals produced in byproduct coke-ovens would be permitted to pass on the increase on delivered cost of coking coal occurring as a result of the wage increase for miners. Several sources said that the increased coal costs would take time to work out. In addition, producers needed time to consider other factors, such as market conditions, in order to make their decisions.

The market positions of the coal chemicals have not changed in the past week. The light oils were still moving very well. Benzol and xylol were in an approximately balanced supply and demand relationship. Toluol continued to be very tight, with government buying making up the bulk of the demand, although industrial demand was good.

The tar acids were relatively slow, particularly the cresols and cresylic acid. Natural phenol has been moving very well for some producers. Synthetic phenol producers have been moving the material right along. Domestic producers of naphthalene have not seen as much activity as they would like. Importers of the 78-degree hot-pressed material reported that sales were still very slow. Imported ADF cresylic acid was showing moderate activity. Pyridin was still in tight supply, but showed some signs that the pressure was easing temporarily.

The American Iron and Steel Institute announced that the operation rate for the week ending November 29, was scheduled to be 105.5 percent of theoretical capacity. This was equivalent to 2,191,000 tons of steel ingots and castings, compared with 2,212,000 tons the previous week, and 2,229,000 tons one month ago.

Basic Products

Benzol—There has been no general increase as a result of the amendment to S.R. 13 and the ruling by OPS that delivered costs of coking coal occurring after October 1 may be passed on by the producers of cokeoven by-product coal chemicals. It was said that producers needed time to study the official wording of these changes, and other factors in the market.

Effective November 26, the price schedules of one benzol producer advanced 3½c. in the Birmingham district. The current range of producer quotations in that area became 30c. to 38½c. per gallon.

The market position of this basic product was unchanged from previous weeks. Producers were moving all of their output and expected to keep their production moving for the first quarter. Some sources even felt that current demand levels would hold up until mid-year. There was no particular shortage of benzol. Consumers were able to obtain all of the material they needed for their immediate use. However, it was said that consumers were willing to buy all the coaltar benzol they could get.

Creosote—The market for this material has not changed significantly in the past several weeks. Producers reported that creosote was still moving at a fairly good pace. There was some material available, which indicated that suppliers could, and would like to sell more creosote, if the business was to be had. Current demand was said to be normal. Some of the additional material available was felt to be a consequence of the high level output sustained by the steel industry. There have been a few signs that a slight increase in activity was noticed in this market in the past few months. There were no changes in prices reported for this material last week.

Cresols—The market for these tar acids has not shown much change in recent weeks. Producers said that there has been some pickup in activity over summer levels, but a substantial change in sales volume has not materialized. Some suppliers reported that orthocresol has been moving at a better rate than the mixed meta-para isomers. Prices have remained at their previously established levels. Supplies were adequate to take care of the current requirements of consumers.

Cresylic Acid—There was little change in the picture of the market for the domestic material. It was said that this tar acid has not shown a continual increase in volume of sales since the first signs of better buying activity were noticed early this fall. Since the first indication of a pickup, buying has shown some tendency towards leveling off a bit. There was a slight variation in the description of the markets for tar acids by various producers. One source said that natural phenol has been going better than cresylic acid or the cresols, while another reported the reverse situation. Another producer felt that all the tar acids were equally slow, but there was slightly more activity than there had been. No changes in the price schedules were announced last week.

The market for imported acid was the same as it had been. Demand was a bit spotty. One week importers reported a little better volume of activity in ADF acid, and another week semed to be quiet. A source said demand was moderate last week. There were occasional sales of good quantities, with most of the material moving at the 85c. level. However, some sales of a few drums were still being made at $1 per gallon.

Naphthalene—Domestic producers said that this material was still moving along rather slowly. There has been no particular pressure from the buildup of inventories, it was said, but the market could stand considerable improvement in demand. A slight improvement has been noted over summer buying levels. However, a substantial increase in activity has not materialized. In some instances, refined naphthalene was said to be moving better than crude material, in relative proportion to their overall production levels. In other instances, suppliers have said that refined material was not doing any better than crude. Although there has been a decided pickup in activity in the betanaphthol market, demand from phthalic anhydride has not shown enough of a pickup to take up the slack.

Importers said that there has been no significant change in the market for 78-degree naphthalene. What little material was being sold, continued to be moved at 4c. per pound, although the price was not too firm in face of a weak demand.

Phenol—Several producers continued to report a good amount of activity for phenol, although some suppliers have stated that this market was as slow as other tar acids. The producers reporting good sales levels for phenol felt that present buying would be sustained for a while longer.

The increases in demand reported from some sectors of the industry were felt to be the result of good activity in phenolic resins and adhesives. Phenolic resins have been moving quite well during this last quarter of the year and were expected to hold up for the first quarter of next year. There have been no changes reported in phenol prices. Supplies were ample enough to accommodate the current demand.

Pyridin—The situation in the current market was the same as it has been for a very long time, supplies were tight and demand was high. Some producers felt that there would not be much basic change in

Market Trends

Prices Advanced
Pyridin, denaturing, 15c. per gal.

Prices Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
113.51	113.50	113.50	113.54

(*For Current Prices see Page 9*)

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ending November 29, was as follows:—

Ammonia liquid, NH₃	lbs.	1,013,571
Ammonium sulphate	lbs.	38,449,291
Benzol	gals.	3,613,623
Coaltar	gals.	16,248,524
Creosote oil	gals.	673,332
Naphthalene, crude	lbs.	2,390,651
Pyridin, refined	lbs.	39,741
Toluol	gals.	797,494
Xylol	gals.	199,296

For Late Market Developments, See Page 4

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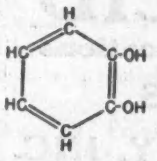

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the position of pyridin for a while. Although there have been indications that some of the pressure was coming off this market, there were those who felt that other outlets would pick up any slack left by reduced demand from any particular area. One source stated that the shortage itself has discouraged a lot of buying. However if there is some indication that the material is available, interest in these directions would perk up.

On the other hand, the list of evidence supporting the idea that the market is easing grows longer. First indications were seen in the market for isoniazid. When the market for the TB drug failed to come up to expectations, many lost interest in it, pressure on 2-degree pyridin was thereby reduced a bit. Secondly, reports have been more frequent lately that the resale price of pyridin was shaky. Resellers have shown a reluctance to handle the material without a firm order. Further, some consumers seem to be able to get 2-degree material for their needs, although they use other tar bases in times of extreme shortage. However, all of this does not add up to an easy market yet. Producers maintain that they can still sell more material. Every consumer that wants 2-degree pyridin still cannot get all it wants. Producers still have orders for more pyridin than they are currently producing, even at the high rates at which production has been during the last quarter.

An increase effective December 1 made current quotations of denaturing pyridin $2.82 per gallon in drums, carlots, and $2.85 per gallon in less than carlots. The principal market for denaturing pyridin was in exports, it was said.

Toluol—There has been no change in the supply picture of this market. The combined totals of industrial and defense needs exceeded the supply of toluol available. Government buying of nitration material and toluol for aviation gasoline has made it difficult for producers to supply the entire needs of industrial consumers. Current demand has been so strong that producers felt that it would hold up well into the next year. Of course, a change in the Korean situation could alter the picture very rapidly, it was said.

No price activity has been reported in this market. One source said that there are so many variable factors which must be taken into account, besides the amendment to S.R.13 and the privilege of passing on increases of delivered coking coal, that a change in schedules may not take place at all for toluol, or may take considerable time.

Xylol—Supply and demand have remained in an approximate balance in this market. Producers were moving just about all of their output and expected the current levels to be sustained for a while. Prices have remained at their previously established levels.

Intermediates

Alphapicoline — Producers said that there was not too much change in the market for this tar base. Production was moving along just about as fast as it was made. However, the pressure, which had been on this material formerly, was no longer there. A producer announced the reduction of its schedules for alphapicoline effective today, December 1. The reduction came in the form of a 10c. decrease, bringing prices down to a single competitive level. Current quotations were 39½c. per pound in carlots, and 40c. per pound in less than carlots.

Betagammapicoline—Most of the pressure which had formerly been on this tar base has disappeared. This was felt to be due to the easing noticed in the isoniazid market. The isonicotinic acid derivative has seen some loss of interest since it became evident that it was not going to reach the inflated expectations of many who were enthusiastic about it earlier in the year. Producers of betagammapicoline said that they were still moving all of their output. It was just that the clamor has died down. Prices were steady at their old levels.

Monochlorobenzene — Demand for this chlorinated benzene has turned towards quietness again, one source said. There had been slightly more activity in previous weeks, but that interest has seemed to have died off temporarily. Supplies were ample enough to accommodate the current levels of demand. The raw material shortages of the past have long since been alleviated by the greater availability of chlorine and benzol. Prices were steady at their old levels.

Orthodichlorobenzene—A source stated that there wasn't too much activity in this market last week. It was said that there had been a little more business the previous week, but things have slowed down again the past week. Supplies were am-

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ple enough to take care of consumer requirements. Prices have remained at their previously established levels.

Phthalic Anhydride—Demand for this anhydride held to relatively good levels. Producers have been reporting more activity in this market since plasticizers and alkyd resins got going once more. Some producers have reported that they were currently producing at full capacity. Where producers were not up to full capacity, it was said to stem from increased production capacity, rather than from a lack of demand. Prices have held to their previously established levels.

Tar Acid Oil—Current quotations of the 15 to 18 percent material, after several recent price adjustments, the most recent of which lowered the outside of the range previously quoted by producers, were at 39c. per gallon in tankcars, between 47c. and 49c. per gallon in carlots, and 50c. to 51c. per gallon in less than carlots, both on a returnable drum basis. Carlots of non-returnable drums were 49c. per gallon, and less than carlots were 51c. per gallon.

The same situation exists in the spread of prices of the 25 to 28 percent material with regard to returnable and non-returnable drums. Carload quantities of returnable drums ranged between 54c. and 56c. per gallon, while carloads of non-returnable drums were 56c. per gallon. Less than carloads of returnable drums were from 57c. to 58c. per gallon, and less than carloads of non-returnable drums were 58c. per gallon. No range existed in the tankcar price, the schedule being 46c. per gallon.

Although there have been no recent changes in the schedules of the 50 to 53 percent material, the following quotations will help to clarify all of the grades quoted by OPD in its prices current section. Carlots of returnable drums ranged between 70c. and 72½c. per gallon, while non-returnable drums were 72½c. per gallon in carlots. Returnable drums in less than carlots were from 73½c. to 74½c. per gallon, and non-returnable drums were 74½c. per gallon in less than carlots. Here again, there was a single competitive price for tankcar quantities, which was 62½c. per gallon.

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UNITED STATES STEEL

Sharples Makes 2 Shifts In Midwestern Sales Staff

Sharples Chemicals, Inc., Philadelphia, has announced two changes in its midwestern sales staff. R. H. Samis, who has been representing the company in the Detroit, Mich., area, will now service all of Michigan with the exception of the upper peninsula. Mr. Samis has been with Sharples for twenty-six years.

Frank K. Hoover, who left the midwestern sales force two years ago to serve as assistant to the executive vice-president, will represent Sharples in Minnesota, Wisconsin, the upper peninsula of Michigan and the northern halves of Indiana and Illinois. Mr. Hoover has also served on the chemical engineering staff at the Wyandotte, Mich., plant.

Pitts. Coke Appoints Ohsol Chemical Engineering Head

Dr. Ernest O. Ohsol has joined Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., as director of chemical engineering. Dr. Ohsol will be responsible for economic and engineering evaluations of major chemical projects and will supervise development of process design and specifications.

Dr. Ohsol was formerly at General Electric Company, Pittsfield, Mass., as manager, new product development laboratory, and before that had been with Esso Research Center of Standard Oil Development Company.

Coal Reserves Remaining in Virginia Detailed in Report by Mines Bureau

Coal reserves now remaining in Virginia total more than 11,000,000,000 tons, according to a recently completed appraisal by the Geological Survey, Secretary of the Interior Oscar L. Chapman has announced. Of this total about 97 percent is bituminous coal, and 3 percent is semi-anthracite.

The new estimate was made in co-operation with the Virginia Geological Survey as part of the program of the Geological Survey for reappraising the coal resources of the United States. It is the result of study of data available in publications, and in the files of the co-operating agencies, supplemented by data provided by mining companies and private individuals in Virginia.

A report, entitled "Coal Resources of Virginia," has been published as Circular 171 of the Geological Survey, and may be obtained without cost on application to the Chief of Distribution, Geological Survey, Washington 25, D. C., or from the Virginia Geological Survey, Box 1428, University Station, Charlottesville, Va.

Analytical Balances Data Offered

A new thirty-two-page booklet containing information on the care and use of analytical balances, has been announced by Christian Becker, a division of the Torsion Balance Company, Clifton, N. J. The booklet is entitled, "Care and Use of Analytical Balances." Single copies of this booklet may be obtained gratis and quantity copies for schools and laboratories will be made available at cost on request, the company has announced.

Trade Briefs

United States Steel Company poured its one billionth ton of steel November 26.

Republic Steel Corporation, Cleveland, Ohio, has named George P. Krumlauf, a metallurgical engineer, to its pig iron and coal chemicals sales division.

Augustus F. Waldenburg has been promoted to sales supervisor of the Chicago district office of Ansco, Binghamton, N. Y., a division of General Aniline & Film Corporation.

CSMA Maps Agenda

—Continued from page 7

heard:—"Problems of Making Small Shipments," George O. Griffith, American Home Products; "Retention of Amines in Wax Polish and Amine Soap Films," Miss Helen Wassell, Carbide & Carbon Chemicals Company, a division of Union Carbide & Carbon Corporation; "The Plan of Montax Wax and Its Derivatives in the Floor Wax Industry," Charles J. Marsel, New York University, and "Packaging of Chemical Specialties," W. L. Hardy, Foster D. Snell, Inc.

Willis Guest Speaker

Paul S. Willis, of the Grocery Manufacturers Association of America, will be the guest speaker at a luncheon on December 8. Following this, awards will be presented for aerosol packaging. In the afternoon, "The duPont Story," a technicolor film will be shown, along with other films whose titles have not yet been announced.

The morning session on December 9 will feature the following talks:—"Small Defense Plants Administration," Harry Fleisher, Small Defense Plant Administration; "Automatic Height-of-Fill Inspection of Canned and Packaged Products," H. Schreiber, jr., General Electric Company, and "Product Liability," George A. Burroughs. A group luncheon will recognize the twentieth anniversary of the use of the Peet-Gray method for evaluating household insecticides, after which there will be a presentation of scrolls.

More Division Meetings

The same divisions that will hold meetings on December 8 will hold concurrent sessions on the following day, with the exception of the aerosol and automotive divisions, which will hold a joint meeting. At the disinfectant and sanitizers division meeting, the following papers will be presented:—"Development of a Detergent-Sanitizer for Washing Eggs," G. R. Goetchius, W. E. Botwright and A. B. Low, Rohm & Haas Company; "Some Problems of Standardizing Mal-Odors for Counteraction Studies," Claude J. D'Angio and Jean F. Mateson, Airkem, Inc.; "Mode of Action of Germicides," S. Boyk, Ottawa Chemical Company, and "Sanitation in the Meat Packing Industry," Richard E. Day, Armour & Co.

Two papers will be presented at the insecticide division meeting:—"New Developments in Rodenticides," Karl P. Link, University of Wisconsin, and "Sales of Insecticides in Detail Outlets," Paul C. C. Olsen, *Drug Topics*. Following this there will be a symposium on "How Various People Look at Labeling," with G. S. McInerny, Boyle-Midway, Inc., serving as moderator. The following papers will be presented:—"The USDA," S. C. Billings, Department of Agriculture; "The Technical Man," Sanford J. Hill, E. I. duPont de Nemours & Co.; "The State Control Official," E. W. Constable; "The Label Designer," N. M. Walker, Pennsylvania Salt Manufacturing Company, and "The Attorney," John D. Conner, association counsel.

Aerosols Symposium

At the aerosol and automotive division meeting there will be a symposium on "Aerosols in the Automotive Field." W. A. Hall, of E. I. duPont de Nemours & Co., will speak on "Stability Standards for Automotive Products."

Dr. John L. Wilson, Economics Laboratories, Inc., will be the moderator at a panel on "The Role of Alkaline Builders and Detergent Formulations" at the soap, detergent and sanitary division meeting. Among the subjects will be:—"Phosphates," "Compounders and Formulators," "Large Soapers as Users of Builders," "Carbonates and Caustic Sodas," and "Silicates."

The waxes and floor finishes division meeting will feature the following papers:—"An Interim Report on Field Performance Tests," J. B. Snider, Federal Supply Service; "A Discussion of Petroleum Waxes," B. H. Clary, Bareco Oil Company, and "Getting the Most From Steel Containers," Norman D. Rice, Inland Steel Container Company. An instrumentation clinic will follow, with Bayard S. Johnson, Franklin Research Company, as moderator. Companies will demonstrate the use of instruments in wax testing and a motion picture, "The Gathering and Processing of Carnauba Wax," will be shown.

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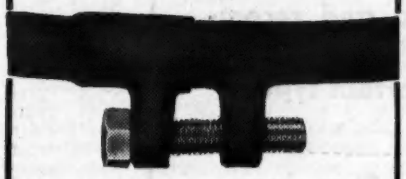

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Drugs and Fine Chemicals

There was no price activity in this market last week. Some observers felt that there would not be any further price changes in major items for the balance of the year. Among the large volume organics, ethanol, isopropanol and the butyl solvents have all been reduced during the past quarter. Methanol, acetone and formaldehyde prices have not been changed and with demand for these compounds having increased substantially during the past few months, are not expected to change. for the balance of the year.

Refined glycerin prices were steady last week and expected to remain so for the rest of the year although current high crude prices were a deciding factor here. In the commodity market, menthol continued in the doldrums. The Japanese material was holding fairly steady while the Brazilian was readily shaded. This season is normally the best period for sales of menthol but to date it has been disappointing. Castor beans continued scarce with quotations on a nominal basis. Podophyllum resin was down in an effort by producers to stimulate consumer interest.

Among animal by-products, stomach substance, not USP, was in strong demand. The heavy demand for stomach substance parallels that for vitamin B-12 since the former material activates the vitamin when used with it in oral administration. Cholic, dehydrocholic and desoxycholic acids, also animal by-products, were reportedly in good demand. The principal use for the latter two acids is reported to be in the manufacture of cortisone. Supplies were poor to fair. Once utilized exclusively in the production of cortisone, most manufacturers have turned to cheaper and more abundant raw materials during the past year. Eventually it is expected that consumption of these acids in cortisone manufacture will diminish considerably. Rennin was another related product in heavy demand with supplies quite short. Trypsin, ox bile, USP, and cholesterol were in fair demand, on the whole, with supplies adequate.

Sales of bromine as elemental bromine and in compounds, exceeded those during the record war year of 1944, last year, reports the Bureau of Mines. The bulk of the increase was attributable to greater consumption of bromine in the manufacture of ethylene dibromide which is a vital ingredient in anti-knock compounds used in regular and aviation gasolines.

Antibiotics—Demand for penicillin and streptomycin was fair. There has been no radical change in the situation which has characterized this market during the past year, that is, the existence of an oversupply of these materials. This situation has resulted in severe shading with the price structure very unstable. For some time producers have been forced, due to heavy competition, to reduce their prices on these items to the point where a profit margin has become virtually non-existent.

The current trend in the market has been toward some price stability since most producers have more or less reached the point where further price cuts cannot be considered. Some of the smaller producers who came into this market on the crest of the boom in antibiotics have withdrawn from or curtailed production, being more or less solely dependent on antibiotics. The major producers of penicillin and streptomycin have had other items in their line to fall back upon during the period since competition has forced prices to the break even point.

Currently streptomycin and dihydrostreptomycin salts were available at 21c. per gram, in bulk. Production of streptomycin in August, 1952, totaled 1,012,333 grams compared to the 2,423,765 grams turned out in July this year. Production of dihydrostreptomycin during the same period totaled 7,558,826 grams in August compared to 7,774,329 grams produced in July.

Penicillin, crystalline, potassium and sodium, bulk was currently quoted at 10c. to 11c. per 1,000,000 units while procaine was priced 1c. per 1,000,000 units higher.

Production of penicillin and salts during August aggregated 23,326,868 million Oxford units in August compared to 25,915,474 million Oxford units produced during July, 1952, according to the same agency.

Bromine—Sales of bromine and bromine in compounds during 1951 were the highest for any year, exceeding the record previously set during the war year 1944, according to reports by producers to the Bureau of Mines, United States Department of the Interior. Total sales of bromine in 1951 aggregated 129,563,073 pounds valued at $26,179,556.

The bulk of the sale of bromine was in bromine compounds. Sales of elemental bromine totaled 6,420,016 pounds. A further breakdown of the overall total included 780,915 pounds of bromine sold in sodium bromide, 2,207,773 pounds of potassium bromide, 327,381 pounds in ammonium bromide and 119,826,988 pounds used in other compounds, including ethylene dibromide. As was determined by comparison with 1950 figures, the bulk of the increase in bromine consumption was in the manufacture of ethylene dibromide which is used as an ingredient of anti-knock compounds in regular and aviation gasoline.

Castor Oil—Offerings of beans continued scarce with offerings nominal at $190 per long ton, f.o.b., Brazil.

Arrivals of beans at Philadelphia and New York ports last week amounted to 3,157,350 pounds, as compared with 3,156,300 the previous week, and 5,344,950 during the corresponding week of last year. Imports of castor oil at these ports last week totaled 1,154,600 pounds, as against the 3,724,000 pounds brought in during the previous week, and the 1,118,000 pounds landed during the corresponding week of 1951.

Total imports of beans so far this year at Philadelphia and New York amounted to 110,400,500 pounds, compared with 138,208,600 pounds during the corresponding period of 1951. Total oil imports at these ports so far this year amounted to 69,915,150 pounds, as against the 52,107,929 pounds brought in during the same period of last year.

Chloroform—Demand for this chlorinated paraffin was said to be fair. Prices were unchanged and supplies were adequate for current inquiry.

Cholesterol—Demand for this material was fair while supplies were adequate for current inquiry. In 100 pound lots, cholesterol was quoted from $8.25 to $9.50 per pound.

Cholic Acid—Demand for this material was said to be well sustained while supplies were only fair. In lots from 10 to 25 pounds, cholic acid was currently quoted at from $10.75 to $10.85 per pound.

Codliver Oil—Demand for this item was seasonally steady while supplies were adequate for current inquiry. Codliver oil was currently available at $1.55 to $1.65 per gallon. Although the use of synthetic vitamins has cut into the medicinal use of codliver oil, there continues to be a limited market for the oil in this application. Its use in animal and poultry feeds has remained steady, according to dealers.

Dehydrocholic Acid—Demand for this compound was good, which was partially due to its utilization in the manufacture of cortisone. Supplies were fair to poor. In 10 o 100 pound lots, injectible grade, dehydrocholic acid was currently available at $25 to $25.50 per pound while the oral grade was quoted from $18.40 to $18.45 per pound, on the same basis.

Desoxycholic Acid—The supply of this material was reportedly fair to poor. Demand continued strong principally due to its use as raw material in the production of cortisone. Since production of cortisone began, alternate raw materials have been found satisfactory and currently different raw materials are being used in its manufacture. A least one major producer of the drug has continued its manufacture using desoxycholic acid as the starting raw material. However, due to its high cost, it is felt to be only a matter of time until desoxycholic acid is no longer used in this application. In lots from 10 to 100 pounds, desoxycholic acid was currently quoted at $23.50 per pound.

Methanol—Demand for synthetic methanol was at good levels, on the whole. Antifreeze requirements have been met to date. Further requirements this winter remain a matter for conjecture but flue-

For Late Market Developments, See Page 4

Market Trends

Prices Advanced

None

Prices Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
92.75	92.79	93.00	100.77

(For Current Prices see Page 9)

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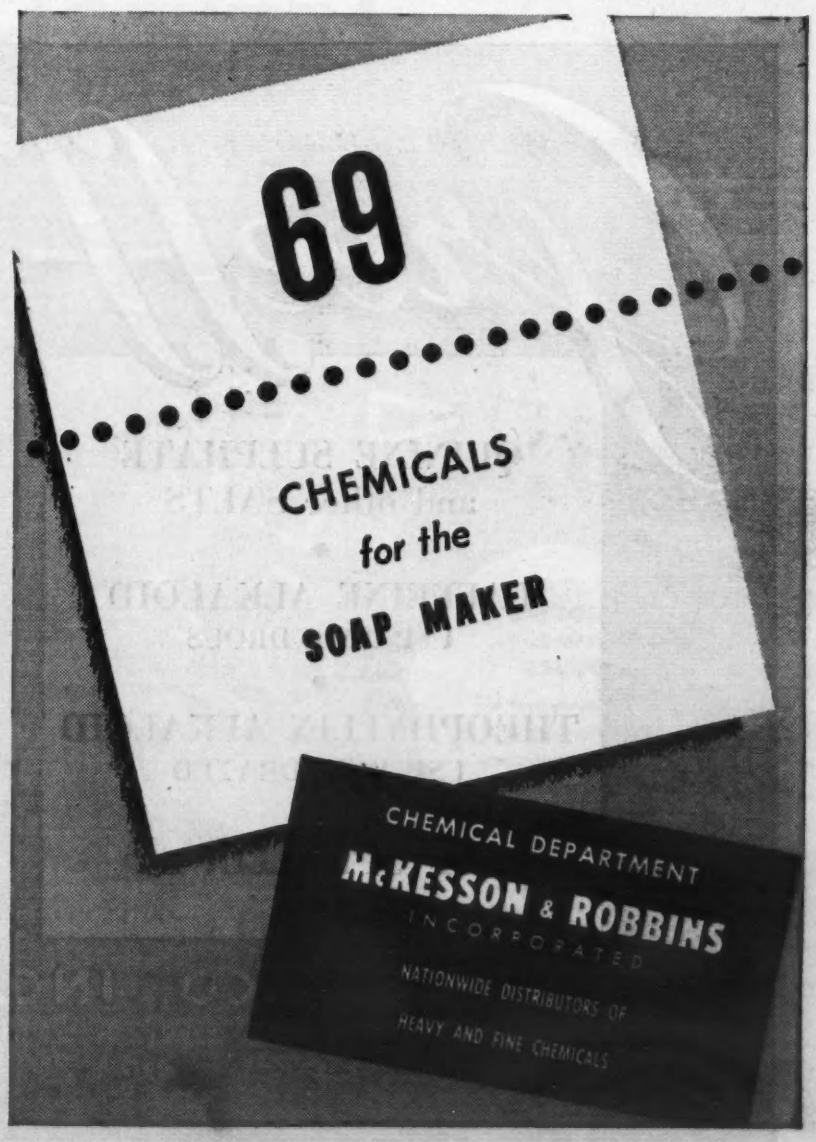

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uating temperatures could be expected to increase demand, it was said, by antifreeze formulators. Supplies were ample for current inquiry and prices have remained unchanged. There had been some price shading earlier this year but the price structure on methanol has firmed up with the increase in consumption.

Natural methanol production in September, 1952, totaled 234,000 gallons compared to the 179,000 gallons turned out in the preceding month and the 172,000 gallons produced during the corresponding month in 1951.

Milk Powder—Milk powder imports for the week ending November 13 amounted to 360 bags and 79 drums from Germany; 1,200 bags from Holland; and 1,000 bags from Sweden. Estimated total pounds of imports to date are slightly over 33,000,000 pounds of whole milk powder and 6,400,000 pounds of buttermilk powder.

Dry whole milk production for September, at 6,175,000 pounds, was the lowest for the month since 1941, down 16 percent from a year earlier and 50 percent from the 5-year Sepember average. For the first nine months of 1952, production totaled 82,360,000 pounds, a decline of 28 percent from the same period in 1951. Spraydried whole milk production, at 5,800,000 pounds for September, was down 11 percent from a year earlier and 48 percent from the September 5-year average. Cumulative production for the first 9 months of 1952 totaled 76,760,000 pounds, a decline of 27 percent from the corresponding period a year earlier. Roller-dried whole milk during September equalled 375,000 pounds, a decline of 56 percent from a year earlier and 72 percent from the 5-year average. Totaling 5,600,000 pounds for the first 9 months of 1952, production of this product was 39 percent below that of the same months in 1951.

Ox Bile—Demand for this material was said to be fair to poor. Supplies were adequate for current inquiry. Ox bile extract, USP, was currently listed at $6 per pound in lots of 5 pounds or more while the powdered grade, not extract, was quoted at $4.35 per pound, on the same basis.

Pentaerythritol—Demand for this polyol was running at good levels, according to producers. The recent increase in the price of glycerin has been a factor in the increased demand for PE from the protective coatings industry. Supplies of pentaerythritol were currently about in balance with demand although some producers reported there was some delay in filling orders due to the high volume of buying. Prices continued unchanged.

Production of pentaerythritol during August totaled 3,378,777 pounds compared

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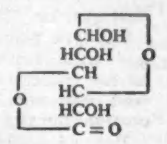
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to the 2,875,735 pounds turned out in July, 1952, according to the Tariff Commission.

Perchloroethylene — Demand for this chlorinated olefin was reportedly fair to good depending upon the viewpoint of the producer queried. Supplies were ample for current inquiry and prices unchanged.

Production of perchloroethylene in August totaled 9,988,913 pounds compared to the 8,144,715 pounds turned out in July, 1952, according to the Tariff Commission.

Podophyllum Resin, NF—Demand for this material was steady with supplies said to be ample for current inquiry. Quotations currently were from $11 to $11.20 per pound, depending upon quantity and producer.

Propyleneglycol — Supplies of propyleneglycol was reported to be ample for current inquiry. Demand has been fair, on the whole, although the stepped up tempo of the defense program has been felt indirectly more than directly, it was said. Prices remained at prevailing levels.

Production of propyleneglycol in August 1952 aggregated 7,393,806 pounds compared to the 8,439,866 pounds turned out in July, according to the Tariff Commission.

Rennin—Demand for this material was said to be strong. Supplies were very short while prices for the NF material were unchanged.

Silver Nitrate—Demand for this compound was seasonally steady while supplies were ample for current inquiry. Prices remained unchanged.

Production of silver nitrate (100 % $AgNO_3$) totaled 5,247,000 ounces in September, 1952, compared to the 4,004,000 ounces turned out in the preceding month and the 4,159,000 ounces produced in the corresponding month last year, according to the Bureau of the Census, Department of Commerce.

Stomach Substance—Demand for this material was reportedly at good levels. For some reason, yet to be determined, stomach substance activates vitamin B-12 in oral administration. Vitamin B-12, itself, is in strong demand and it is said that the above cited use for stomach substance has been steadily on the increase.

Commencing with this issue OPD will list stomach substance, not USP, in bulk. Currently this item was quoted at $2.95 to $3.10 per pound depending on quantity. The USP grade is not sold in bulk at present.

Sugar—The U. S. Deparment of Agriculture has issued its monthly report on the status of the 1952 sugar quotas for the various sugar-producing areas supplying the United States market.

The report showed that the quantity of sugar charged against the quotas during January-October amounted to 6,942,745 short tons, raw value, (partly estimated) as compared with 6,855,991 tons charged against such quotas during the same period of last year.

The report includes sugar from all offshore areas recorded as entered or certified for entry, before October 31, 1952, sugar marketed by the beet area, and an estimate of the quantity marketed by the mainland cane area.

The U. S. Department of Agriculture has announced an increase of 100,000 short tons, raw value, in 1952 sugar quotas. This makes the new total 7,900,000 tons.

Of the increase in quotas, 98,640 tons is prorated to Cuba and 1,360 tons to "full duty" countries, as provided by the Sugar Act.

Distribution of sugar by refiners, importers and processors of sugar beets and mainland sugarcane for the year through October has been 334,000 tons greater than in the same months of 1951. If distribution in November and December should equal that for the corresponding months of 1951, the total for the year would be about 8,100,000 tons. As in the increase announced on October 21, the increase announced today has been limited to assure firm sugar prices.

Trichloroethylene — Demand for this chlorinated solvent was said to be fair while supplies were adequate for current inquiry. Prices remained unchanged.

Production of trichloroethylene during August aggregated 19,403,048 pounds compared to the 17,455,250 pounds turned out during the preceding month, according to the Tariff Commission.

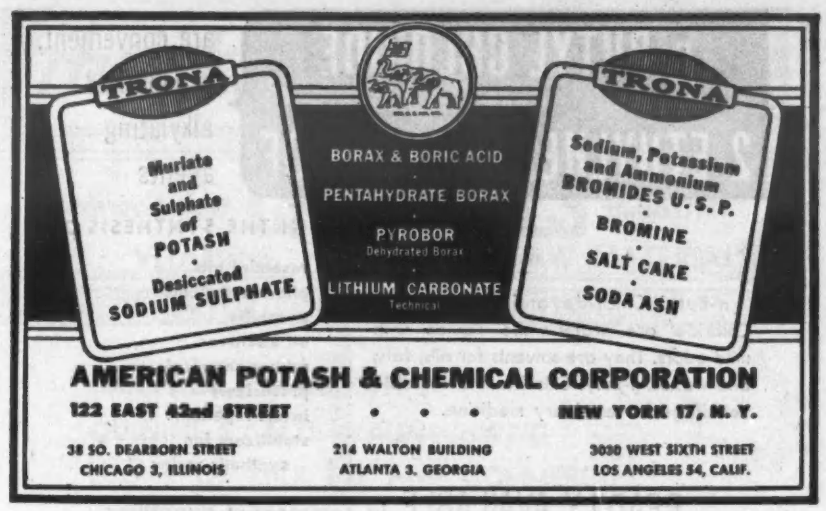
Trypsin—Demand for this material was fair, on the whole. Supplies were said to be adequate for current inquiry while prices were unchanged.

Vitamins — Demand for synthetic vitamins was said to be at good levels. Supplies were ample for current inquiry and prices remained unchanged. The cold weather usually stimulates consumer buying in vitamins. In addition to this factor, inventories were in need of replenishment, according to trade observers.

Vitamin A was said to be going well. The use of synthetic A has been steadily on the increase since it became commercially available. As of August this year, margarine manufacturers were permitted to use synthetic vitamin A in the fortification of their product. Formerly only natural vitamin A was allowed for this use. The synthetic A producers have been pushing their product stressing the advantage of a material which is not as subject to price vagaries as natural vitamin A which is produced from fish livers. Although losing ground to the synthetic vitamin in this aspect, the use of natural vitamin A in animal feed was expected to continue steady.

Ascorbic acid (vitamin C) was in good demand, according to reports. The growing use of frozen foods has accounted for a considerable portion of the vitamin C consumed, it was said. Supplies were adequate for current inquiry.

According to the Tariff Commission, production of ascorbic acid and salts during August totaled 36,949 pounds. Niacin and niacinamide production in August totaled 111,329 pounds compared to the 160,926 pounds turned out in July this year. Production of pyridoxine (B_6) during August aggregated 949 pounds while the aggregate of thiamin chloride (B_1) produced in the same month amounted to 4,796 pounds compared to 5,592 pounds in July.



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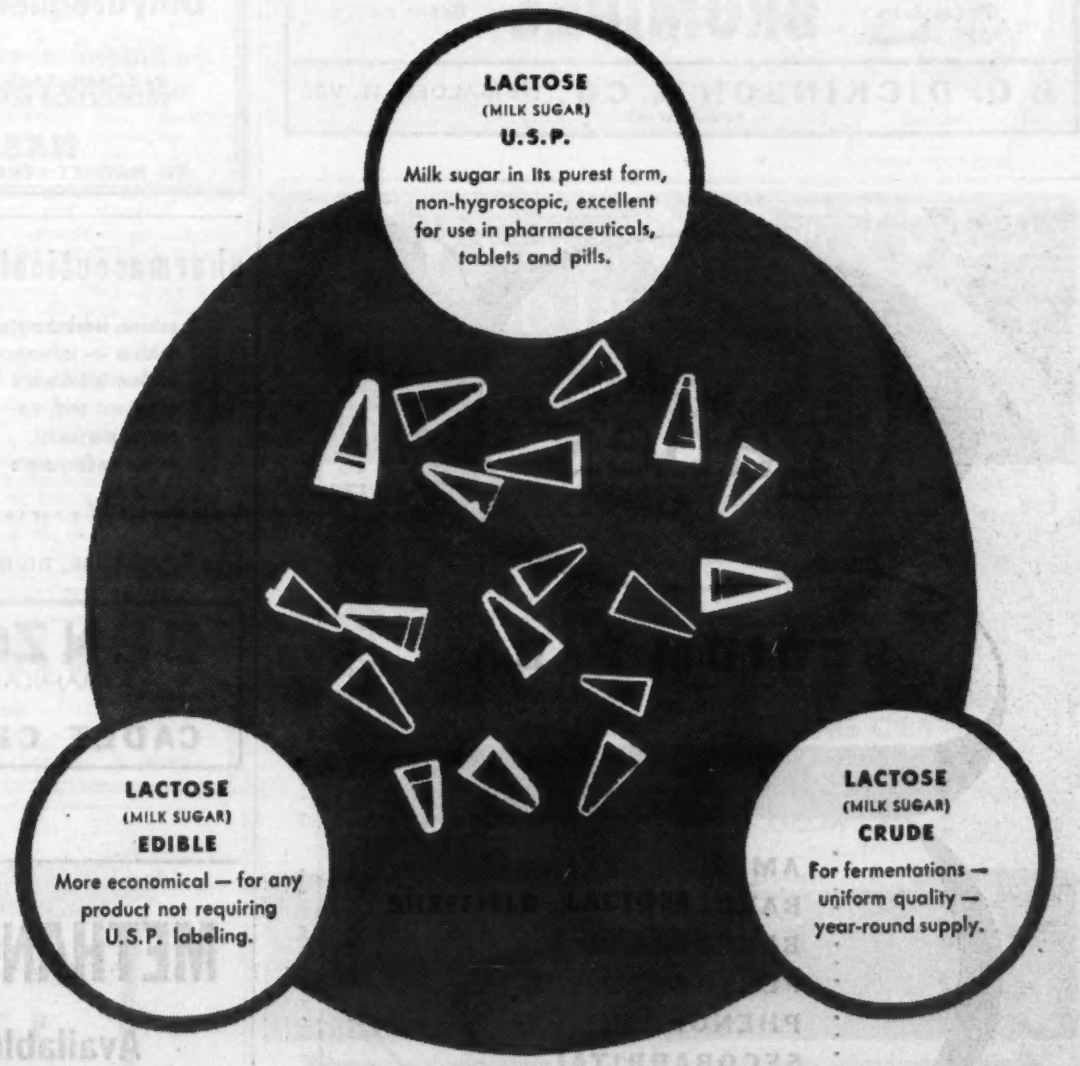

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Lilly's Fair Trade Suit Postponed to December 15

Federal Judge J. Skelly Wright has postponed a hearing on the request of Eli Lilly & Co., Indianapolis, Ind., for a preliminary injunction to stop Schwegmann Brothers Supermarket, New Orleans, La., from selling Lilly products at less than fair-trade prices. Acting after Schwegmann's answer to the complaint challenged the constitutionality of the McGuire fair trade act, Judge Wright postponed the hearing until December 15.

Purpose of the postponement is to allow an interval during which the United States Attorney General will be informed that the constitutionality of the law has been questioned. The Attorney General may intervene to present evidence and arguments in the case. Lilly first filed for the injunction on October 10, and a temporary restraining order was issued on October 29. During the current postponement the temporary order will remain in effect.

Penick & Co. Gets Grant For Research in Cancer

Dr. Cornelius P. Rhoads, director of the Memorial Center for Cancer and Allied Diseases and of the Sloan-Kettering Institute for Cancer Research, has announced the award of a grant of $20,000 to the research laboratories of S. B. Penick & Co., New York. The grant covers a one-year project in the production of derivatives of certain botanical drugs for study in the cancer-screening program of the institute.

A portion of the funds is segregated to defray the costs of the procurement in various parts of the world of botanicals that are now not commercially available. The balance of the fund will be used for the isolation and purification of active principles of botanicals.

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MSA Authorizes France To Buy Pharmaceuticals

France has been given authorization for the use of funds of the Mutual Security Agency of $1,155,000 for the purchase in the United States of medicinal and pharmaceutical products, the agency announced last week. The MSA authorization number is 38-370-00-3042 and the contracting period ends February 28, 1953.

Products to be purchased include $50,000 of hydrocortone, $280,000 of antibiotics, $475,000 of miscellaneous finished medical and pharmaceutical preparations, and $350,000 of medicinal chemicals for pharmaceutical use.

MSA said that American suppliers interested in selling these commodities should immediately advise their sales representatives in France of the authorizations, and obtain the names of French importers receiving sub-allocations to import medicinals and pharmaceuticals.

The agency also announced that the Emergency Procurement Service, General Services Administration will purchase laboratory chemicals and pharmaceuticals in the United States for shipment to Burma. Over 300 separate items will be purchased, but they are in small quantities. Procurement requisition number 82-990-00-703-2329 authorizes this procurement. The invitation states that the bids will be received up to December 9. Copies can be obtained from Mrs. L. Lieberman, General Services Administration, room 7109-C, Seventh and D Streets, S. W., Washington 25, D. C.

Lilly Names Earl Beck Operations Vice-President

Earl Beck has been named executive vice-president of operations for Eli Lilly & Co., Indianapolis, Ind., in a series of promotions announced by the company. Formerly vice-president of industrial relations, Mr. Beck will have responsibility for manufacturing, operations planning, development and control, and marketing. George L. Varnes has been made general manager of the operations group, reporting to Mr. Beck.

In the administration section of the company, Fred M. Hadley, formerly treasurer, has become assistant executive vice-president. He has been replaced as treasurer by J. O. Waymire, who has served in the same capacity for the Lilly export affiliates. R. E. Westfall has been named secretary and treasurer of the affiliated companies.

Arapahoe Forms Subsidiary For Hazardous Operations

Arapahoe Chemicals, Inc., Boulder, Colo., has announced the formation of a new wholly-owned subsidiary, Arapahoe Special Products, Inc., to take over the operation, production and sale of all hazardous processes and materials.

Officers of the subsidiary are:—President, O. B. Jacobson; executive vice-president and treasurer, John W. Macy, secretary, Robert D. Inman. They, along with A. W. Schone and Richard C. Waugh, form the board of directors.

Florasynth List Offered

Florasynth Laboratories, Inc., New York, has published a new price list covering flavors, aromatics and essential oils. Copies may be obtained by writing Florasynth at 1513-1533 Olmstead avenue, New York 61, or any of the company's other offices in this country or its affiliates in Mexico, Canada and South America. Florasynth also announced that charts are available with suggestions for application of its materials in industrial processes.

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MCA Public Relations Program Making Strides

—Continued from page 7

take several steps under today's conditions, he stated. They should (1) raise their sights in estimating what rate of return to expect from new projects of certain types, (2) recognize that a reduction in the cost of equity capital is one of the advantages of diversifying a business or otherwise improving the "quality" of its earnings, (3) keep investors fully informed of their company's progress so that this progress will be fully reflected in higher prices for their stocks and lower costs of their equity capital, and (4) reexamine capital structures to make sure the best balance exists between cheap, risky borrowed capital and safe, costly equity capital.

Titanium metal, coal hydrogenation chemicals and petrochemicals featured the panel on technical developments. Titanium metal will jump to some 2,000,000 pounds this year and an estimated 14,000,000 pounds by 1955 from an output of 20,000 pounds in 1948, Dr. E. A. Gee, in charge of titanium development for duPont, stated. Because of its light weight and high strength, 90 percent of production to date has gone into aircraft, he said. In addition, its corrosion resistance recommends it highly for chemical industry and marine use.

Basic problem for the future is improvement of production methods to achieve the drastic price reductions essential to a sizable civilian market. DuPont alone is spending over a $1,000,000 annually in new process research, Dr. Gee said.

Coal Hydrogenation

Speaking on the hydrogenation of coal, Harry B. McClure, vice-president of the Carbide & Carbon Chemicals Company, a division of Union Carbide & Carbon Corporation, New York, pointed to rapidly expanding demand for the coal chemicals. Benzol, one of the most important of these, is required in large amounts for styrene for synthetic rubber. The synthetic detergents, recently growing at the rate of 30 percent a year, also use benzol as well as phenol and naphthalene. Another benzol outlet, polystyrene resins, has a growth rate of 35 percent per year, Mr. McClure said, while phenolic resins are climbing 14 percent per year. Coal chemicals will also see service in important new end uses like structural materials and synthetic textiles, he pointed out.

The only hydrogenation plant producing chemicals rather than liquid fuels, Mr. McClure believes, is the 300-ton-a-day Carbide plant which opened in May of this year at Institute, W. Va. In this plant, which liquefies coal with hydrogen at high pressures and moderate temperatures, coal

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processing time, operating pressures and amount of hydrogen necessary have been substantially reduced.

This "gentler" hydrogenation treatment, he said, obtains direct from the coal many chemicals normally synthesized from cokeoven byproducts:—Anilin, phenol, toluidin, and xylidin, among others. In the long-range, Mr. McClure concluded, demand for many of the coal chemicals would outrun the foreseeable supply from coke oven operations, thus pointing to a solid future for the hydrogenation process.

Petrochemicals Growth

Mr. Buck, manager of manufacturing development for the Shell Chemical Corporation, New York, tied petrochemicals growth to the elementary economics of utility at the right price. The petrochemicals industry thus gained entry into the economy by supplying existing raw materials and intermediates of established utility at lower prices, he said. In this category were the basic chemical building blocks like ethylene, propylene and butylenes; and intermediates like alcohols, acetones and ketones.

Next step for petrochemicals, Mr. Buck said, was development of new products for which utility had to be established. Among these were agricultural chemicals like insecticides, herbicides, defoliants and soil fumigants. The most important segment of the field dollarwise, however, is the polymers which give us synthetic rubber, synthetic resins including fibres, as well as plastics, adhesives and paints. Some of these opened up entirely new lines of products; some, like the synthetic detergents, successfully competed with older products.

Clayton S. Shoemaker, president of Dow Chemical Company's export subsidiaries—Dow Chemical Inter-American, Ltd., and Dow Chemical International, Ltd.—described the tax benefits derived from the establishment of export units dedicated solely to the foreign field. He said that Dow's two subsidiaries not only provide a tax saving but also permit greater concentration on the expansion of foreign markets.

In the case of the international corporation, Mr. Shoemaker pointed out, nonpayment of excess profits taxes brings the federal tax rate down to 52 percent; the Western Hemisphere corporations act allows the inter-American concern to take a credit of 27 percent based on net income, giving a federal tax of about 38 percent. He added, however, "We feel that the biggest advantage in forming the two export companies was the separating of our export personnel from our domestic force and thus allowing 100 percent attention on export matters by a separate organization."

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3 bgs, Chemical Bank, Oosthaven
152 bgs, Mincing Trading Corp, London
524 bgs, Internatio Rotterdam, Oosthaven
80 bgs, Becker Mayer Seed Co, Oosthaven
160 bgs, Otto Gerdau, Oosthaven
604 bgs, Mincing Trading Corp, Oosthaven
245 bgs, Singapore

PEPPER, WHITE—231 bgs, Internatio Rotterdam, Pangkal Pinang
80 bgs, Joensson & Cross, Pangkal Pinang
PETITGRAIN OIL—37 cs, Rotterdam
PETROLEUM, CRUDE—60,702 bbls, California Oil Co, Las Piedras
120,000 bbls, Socony Vacuum Oil Co, Puerto La Cruz
148,550 bbls, Cities Service Oil Co, Amuay Bay
111,220 bbls, Esso Standard Oil Co, Cartagena
108,250 bbls, Esso Standard Oil Co, Amuay Bay
30,508 tons, Esso Standard Oil Co, Amuay Bay
PIMENTO BERRIES—50 bgs, J A Manton, Kingston
LEAF OIL—2 dms, Magnus, Mabee & Reynard, Kingston
2 dms, Norda Essential Oil & Chemical Co, Kingston
POLLOCKLIVER OIL—115 dms, Arista Oil Products Co, Yokohama
75 dms, Albumina Supply Co, Yokohama
POPPY SEED—667 bgs, Istanbul
POTASSIUM CYANIDE—72 dms, Rotterdam
PERCHLORATE—25 bbls, Hummel Chemical Co, Antofagasta
PSYLLIUM SEED—15 bgs, National City Bank, Leghorn
141 bgs, S B Penick & Co, Bombay
648 bgs, T M Duche & Sons, Bombay
603 bgs, Parke Davis & Co, Bombay
344 bls, Brown Bros, Bombay
PYRETHRUM FLOWERS—100 bls, S B Penick & Co, Mombasa
175 bls, John Powell & Co, Mombasa
125 bls, U S Industrial Chemical Co, Mombasa
QUEBRACHO EXTRACT—2,416 bgs, Tanimex Corp, Buenos Aires
QUICKSILVER—35 flks, L H Keller & Co, Tampico
100 flks, Chase National Bank, Tampico
RESIN, SYNTHETIC—21 bls, F L Kraemer & Co, London
132 bgs, F L Kraemer & Co, London
SAGO FLOUR—264 bgs, W R Grace & Co, Singapore
SASSAFRAS OIL—10 dms, P H Petry, Keelung
SEEDLAC—331 bgs, East Asiatic Co, Bangkok
269 bgs, Commercial Alcohols Ltd, Bangkok
210 bgs, Bangkok
SESAME SEED—375 bgs, Louis Furth, Corinto
300 bgs, East Asiatic Co, Corinto
SHARK OIL—12 dms, Collett Week Nibecker, Valparaiso
SHARKLIVER OIL—100 dms, J D Smith Interocean Co, Yokohama
17 dms, Transocean Commerce Inc, Yokohama
40 dms, Arista Oil Products Co, Yokohama
SHELLAC—16 dms, F H Paul & Stein Bros, Hamburg
SILICA—200 bgs, F W Berk & Co, Bordeaux
1,176 bgs, Chase National Bank, Bordeaux
849 bgs, Bordeaux
SODIUM AMINOSALICYLATE—16 dms, Roussel Corp, London
10 cs, Roussel Corp, London
SILICOFLUORIDE—363 bgs, Lo Curto & Fnunk, Rotterdam
SQUALE OIL—12 dms, Coty Products Corp, Havre
STARCH—2,000 bgs, Haberland Mfg Co, Rotterdam
STRONTIUM CARBONATE—9 dms, Byron Chemical Co, London
SULPHADIAZIN — 40 dms, American Cyanamid Co, London
TAPIOCA FLOUR—3,000 bgs, Stein, Hall & Co, Bangkok
TEAFLUFF—39 chts, A M Goldstein, London
TEAWASTE—116 chts, A M Goldstein, London
TOLU, BALSAM—50 cs, Wessel Duval & Co, Aruba
TONKA BEANS—11 bbls, C Smiles & Co, Belem-Para
7 bbls, Machado Co, Belem-Para
TRAGACANTH GUM—197 bgs, J J Duffy Co, Rotterdam
13 cs, Tragacanth Importing Co, Rotterdam
13 cs, F W Hartman, Hamburg
TUNG OIL—300 tons, Buenos Aires
TUNU GUM—104 cs, L A Dreyfus, Corinto
ULTRAMARINE BLUE—1,372 bgs, Standard Ultramarine Co, Hull
10 cks, Landers Segal Color Co, Rotterdam
UREA—1,429 bgs, Chas Page & Co, Genoa
1,429 bgs, Siegel Chemical Co, Genoa
2,500 bgs, M W Hardy & Co, Genoa
2,000 bgs, Genoa
635 bgs, Rotterdam
SYNTHETIC—2,000 bgs, Chemical Manufacturing Co, Liverpool
VANADIUM CONCENTRATES—1,200 bgs, Vanadium Corp of America, Callao
VANILLA BEANS—32 cs, M Cortizas & Co, Vera Cruz
VALONIA CUPS—5,950 bgs, Barkey Importing Co, Canakkale
VETIVER ROOT—3 bls, S B Penick & Co, Tuticorin
WATTLE BARK—550 bls, Olson Sales Agency, Beira
WHITING—800 bgs, Sterling Drugs, London
WOOL GREASE—87 dms, Croda Inc, Hull
35 dms, European Chemical Co, Bremen
18 dms, A M Goldstein, London
152 dms, Hudson Shipping Co, Nagoya
53 kgs, Genoa
WOLFRAM ORE—400 bgs, Wah Chang Corp, Bangkok
YLANG YLANG OIL—3 cs, Antoine Chiris, Havre

Baltimore

ALCOHOL, LAURIC—38 dms, American Alcolac Corp, Havre
COPRA—500 tons, American Trust Co, Cebu
FENUGREEK SEED—110 bgs, Toledano & Pinto, Casablanca
FISHMEAL—2,000 bgs, State Export Co, Agadir
4,000 bgs, Albumina Supply Co, Agadir
5,010 bgs, Albumina Supply Co, Safi
MANGANESE ORE—4,598 tons, National City Bank, Marmugoa
POPPY SEED—133 bgs, Istanbul
SODIUM BISULPHITE ANHYDROUS—210 kgs, American Cyanamid Co, Genoa
UREA—2,500 bgs, M W Hardy & Co, Genoa

Boston

BONEMEAL—2,418 bgs, Transatlantic Animal By Products Corp, Genoa

Los Angeles

AMMONIUM CHLORIDE—134 bgs, Rotterdam
ANTIMONY OXIDE—300 bgs, Harshaw Chemical Co, Liverpool
BONEMEAL—1,452 bgs, Van Waters & Rogers, Genoa
CARAWAY SEED—40 bgs, Hismoco American Co, Rotterdam
150 bgs, Westco Products Co, Rotterdam
COPRA—500 tons, Procter & Gamble Co, Legaspi
500 tons, Copra Oil & Meal Co, Cebu
500 tons, Vegetable Oil Products Co, Legaspi
500 tons, Vegetable Oil Products Co, Sian
500 tons, Pacific Vegetable Oil Corp, Sian
CAKE—10,000 bgs, Pacific Vegetable Oil Corp, Manila
4,000 bgs, Van Waters & Rogers Co, Cebu
2,987 bgs, Balfour Guthrie & Co, Zamboanga
EARTH COLOR—450 bgs, Frank D Davis Co, Antwerp
300 bgs, Landers Segal Color Co, Rotterdam
LOCUSTBEAN GUM—20 bgs, F S Browning, Genoa
MEATMEAL—220 bgs, Wessel Duval & Co, Rotterdam
MEATMEAL TANKAGE—10,862 bgs, Wilbur Ellis Co, Amsterdam
MILK POWDER—400 bgs, M E Franke Inc, Gothenburg
NAPTHALENE—100 bgs, Joman Chemical Corp, Antwerp
PAPRIKA—150 bgs, Hismoco American Co, Rotterdam
50 bgs, H M Newhall & Co, Rotterdam
PEATMOSS—2,800 bls, Wilbur Ellis Co, Antwerp
850 bls, Pacific Wax & Trading Co, Antwerp
500 bls, Edmond J Lang, Antwerp
500 bls, East Asiatic Co Inc, Antwerp
500 bls, Antwerp
PEPPER, BLACK—32 pkgs, Hismoco American Co, Djakarta
POLLACK LIVER OIL—100 dms, Van Camp Sea Foods Co, Yokohama
POPPYSEED—50 bgs, Westco Products Co, Rotterdam
POTASSIUM NITRATE—400 bgs, L H Butcher Co, Hamburg
200 bgs, Hamburg
QUEBRACHO EXTRACT—1,002 bgs, Harold Schulter, Buenos Aires
SHARKLIVER OIL—100 dms, Van Camp Sea Food Co, Yokohama
SODIUM SILICOFLUORIDE—364 bgs, Hamburg
SUNFLOWER SEED EXPELLERS—116,229 bgs, International Packers, Buenos Aires
MEAL—9,544 bgs, W R Grace & Co, Buenos Aires
UREA—2,000 bgs, C M C Chemicals Inc, Liverpool
VANILLA BEANS—55 cs, Maurice Carasso & Co, Marseilles
WHITING—2,200 bgs, L H Butcher & Co, Antwerp
2,400 bgs, Antwerp
ZINC CONCENTRATES—730 dms, American Smelting & Refining Co, Sunrigao

Norfolk

FISHMEAL—1,000 bgs, Lindfors Chemical Co, Safi

Philadelphia

AMMONIUM CHLORIDE—1,100 bgs, Chemical Mfg Co, Liverpool
ANTIMONY ORE—250 bgs, Antofagasta
ASBESTOS FIBER—2,700 bgs, Keasby-Mattison, Lourenco Marques
1,200 bgs, Bankers Trust Co, Lourenco Marques
600 bgs, Phila National Bank, Lourenco Marques
BERYL ORE—76 dms, Walvis Bay
BERYLLIUM ORE—400 bgs, Walvis Bay
BONEGRIST—4,554 bgs, Credit Suisse, Rosario
6,222 bgs, National City Bank, Buenos Aires
BONEMEAL—19,584 bgs, Credit Suisse, Rosario
4,753 bgs, Credit Suisse, Buenos Aires
CASEIN—1,000 bgs, Fidelity Trading Co, Buenos Aires
2,000 bgs, National City Bank, Buenos Aires
CRESYLIC ACID—50 dms, C M Simon Co, Liverpool
DIVI DIVI—1,158 bgs, Selma Mercantile Corp, Bonaire
FISHMEAL—2,000 bgs, Albumina Supply Co, Agadir
830 bgs, Albumina Supply Co, Casablanca
FLUORSPAR—228 tons, Irving Trust Co, Bordeaux
GLUESTOCK—156 bls, Antwerp
GYPSUM—4,881 tons, U S Gypsum Co, Hantsport
LITHIUM ORE—1,453 tons, Girard Trust Co, Walvis Bay
109 tons, Beira
MANGANESE ORE—5,500 tons, E J Lavino, Takoradi
MOLASSES—406,463 gals, ICEA, Guantanamo
977,945 gals, ICEA, Santiago
MUSTARD SEED—400 bgs, Amaren Trading Co, London
NAPHTHALENE—607 bgs, James E Fox, Manchester
5,555 bgs Allied Chemical & Dye Corp, Rotterdam
PEATMOSS—300 bls, Halfmoon Mfg & Trading Corp, Rotterdam
100 bls, Keer Mauer, Bremen
900 bls, Bremen
PETROLEUM, CRUDE—179,547 bbls, Gulf Oil Corp, Puerto La Cruz
304,222 bbls, Gulf Oil Corp, Mena Al Ahmadi
127,370 bbls, Atlantic Refining Co, Mena Al Ahmadi
176,791 bbls, Texas Co, Sidon
133,099 bbls, Texas Co, Tucupido
120,000 bbls, Socony Vacuum Oil Co, Montevideo
348,794 bbls, Socony Vacuum Oil Co, Mena Al Ahmadi
116,416 bbls, Socony Vacuum Oil Co, Covenas
POTATO STARCH—300 bgs, Chemical Bank, Rotterdam
1,400 bgs, Rotterdam
QUEBRACHO EXTRACT—1,049 bgs, First National Boston, Buenos Aires
2,540 bgs, Manufacturers Trust Co, Buenos Aires
1,020 bgs, First National Chicago, Buenos Aires
SODIUM FLUORIDE—440 bgs, Rotterdam
VANILLA BEANS—16 cs, Corn Exchange Bank, Havre
WATTLE BARK—1,729 bls, Durban
WHITING—1,600 bgs, N H Weitzner, Antwerp
1,630 bgs, Pluess Staufer, Antwerp

San Francisco

ANISE SEED—25 bgs, H M Newhall & Co, Rotterdam
CARAWAY SEED—100 bgs, Langandorf United Bakeries, Rotterdam
CASSIA—100 bls, S L Jones & Co, Hong Kong
388 pkgs, Rotterdam
CASTOR BEANS—992 bgs, Pacific Vegetable Oil Corp, Cristobal
OIL—209 dms, Calcutta
COPRA—50 tons, American Trust Co, Cebu
1,000 tons, Cargill Inc, Davao
500 tons, Cargill Inc, Siaian
CAKE—90 tons, Balfour Guthrie, Cebu
COTTON LINTERS—579 bls, Lastreto Phillips, La Union
FISHLIVER OIL—25 dms, Public National Bank, Yokohama
GYPSUM—9,085 tons, Kaiser Gypsum, San Marcus
LINSEEDMEAL—98 tons, Buenos Aires
MACE—13 cs, Catz American Co, Sourabaya
MEATMEAL—98 tons, Balfour Guthrie, Montevideo
NUTMEGS—150 bgs, Catz American Co, Port of Spain
25 bgs, Hismoco American Co, Port of Spain
3 bgs, Barton Walnut Hullers, Port of Spain
OLIVE OIL—549 dms, A Giurlani & Bro, Rotterdam
PAPRIKA—100 bgs, H M Newhall & Co, Rotterdam
75 bgs, Security First National Bank, Rotterdam
PEATMOSS—500 bls, Lastreto Phillips, Rotterdam
500 bls, Pacific Wax & Trading Co, Rotterdam
PEPPER, WHITE—15 bgs, Internatio Rotterdam, Singapore
32 bgs, H M Newhall & Co, Singapore
SESAME SEED—125 bgs, Pacific National Bank, Corinto
550 bgs, Bank of California, Corinto
200 bgs, Lastreto Phillips, Corinto
SUNFLOWERSEED MEAL—246 tons, Buenos Aires
TANNING EXTRACT—163 bgs, H M Newhall & Co, Singapore
TAPIOCA—80 bgs, H M Newhall & Co, Sourabaya
FLOUR—55 bgs, Geismar & Co, Santos

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*Diiodomethane, for example

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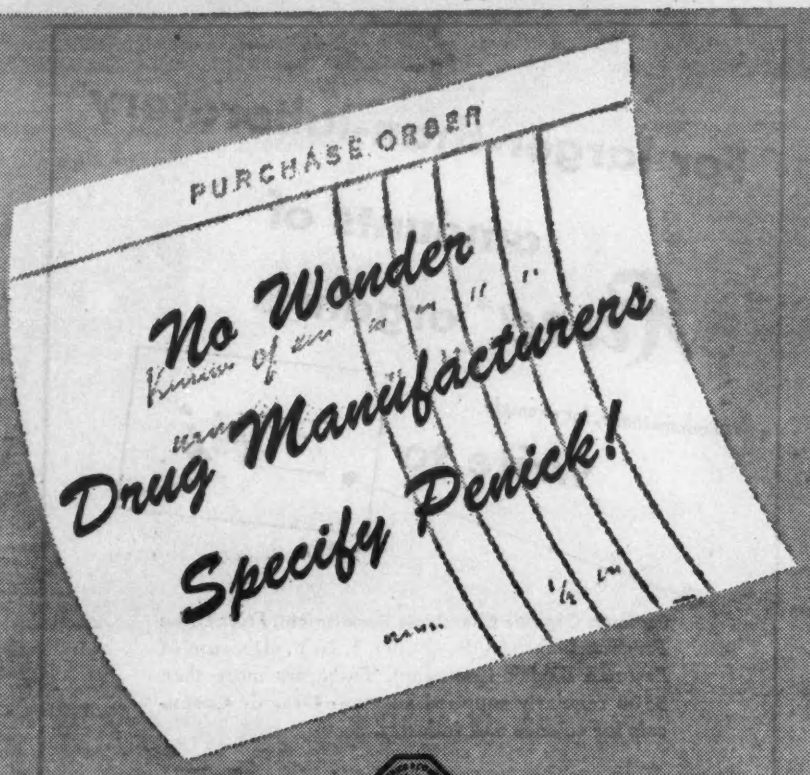

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Usnea-A Macabre Note in Botanicals History

This drug, prescribed for nervous and wasting diseases, and officially listed in the pharmacopeia until the 19th century, was an outcome of medieval regard for the supernatural and the weird. It was in fact a moss—scraped from the skulls of criminals who had been hung in chains.

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Botanical Drugs, Spices, Gums

The weight of price change in the botanical market was on the up side but the more important movements were reductions. The net result was a rise of 0.12 point in the market index which stood at 103.72 at the end of the week.

Price weakness in ergot was reported together with fact that consumption has dropped materially following the total withdrawal of interest formerly held by some buyers. Weakness was also to be found in copaiba and tolu balsams. African and No. 3 Jamaica ginger root prices lost some of the stiffening that had brought fractional advances in the recent past.

This weak side of market prices was in part offset by the sudden strength manifested by a very sharp advance in quotations on Canadian balsam fir and the almost total eclipse of spot stocks of Oregon balsam which, however, was held to unchanged levels.

Other changes in quotations developed mainly in flavoring materials but here again the weight of change was on the side of higher prices. Among articles held at higher levels were Syrian and Turkish anise seed, Batavia and Saigon cassia, Zanzibar clove, Siauw mace, Spanish rosemary leaves, and Spanish stemless sage. Lower quotations were restricted to Czech anise, Guatemalan decorticated cardamom, Iranian and Turkish cumin, Danish yellow mustard, and Dutch poppy seeds, together with Italian officinalis sage.

Demand throughout the week was very small. Buyers bought prompt needs only, probably in some degree being affected by the fact that the inventory period lies directly ahead and that low inventories aid in making a good year-end statement.

As of November 6, OPS removed all price ceilings on seeds, herbs, and spices. A report of this action appears elsewhere in this issue of OPD.

Market Trends

Prices Advanced

Drugs

Fir balsam, Canada, $1.50 per gal.
Ginger root, Cochin, unbleached, 1½c. per lb.

Other Articles

Anise seed, Syrian, ½c. per lb.
Turkish, ½c. per lb.
Cassia, Batavia, cuttings, 1c. per lb.
longstick, 1c. per lb.
Saigon, medium, 2c. per lb.
Clove, Zanzibar, 1c. per lb.
Mace, Siauw No. 1, 2c. per lb.
Pepper, black*, Malabar, spot, 3c. per lb.
Rosemary leaves, Spanish, ½c. per lb.
Sage, Spanish stemless, ½c. per lb.

Prices Reduced

Drugs

Copaiba balsam, 5c. per lb.
Ergot, 50c. per lb.
Ginger root, African, ½c. per lb.
Jamaica, No. 3, ½c. per lb.
Tolu balsam, 10c. per lb.

Other Articles

Anise seed, Czech, ½c. per lb.
Cardamom seed, decorticated, Guatemalan, 10c. per lb.
Cassia, Saigon, broken, ½c. per lb.
Cumin seed, Iranian, ¼c. per lb.
Turkish, ¼c. per lb.
Mustard seed, Danish yellow, ¼c. per lb.
Poppy seed, Dutch, ¾c. per lb.
Sage, Italian, officinalis, 1c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
103.72	103.60	103.26	116.79

*Obtained too late for index calculation.

(For Current Prices see Page 9)

Balsams

Copaiba—Local quotations sagged to 95c. to $1.75 per pound under competition that seemed to arise from limited demand.

Fir—So far as could be learned last week no Oregon balsam was to be had on the spot and a nominal market prevailed at $2.85 per gallon, the last price quoted firm. Canadian balsam was higher at $34 to $35 per gallon in moderate supply on spot and not too readily obtainable from the origin.

Tolu—Competition was more active once more and open quotations were reduced to the basis of $3.75 to $4.85 per pound as to seller. Some local reports indicated that as low as $3.60 per pound had been named.

Barks

Lemon Peel—Replacements have not arrived in quantity for some time past and current replacement stocks still seemed to be on the low side. Spot holdings have shrunken materially, thus giving the market a much firmer undertone.

Orange—Not too much stock of good quality peel was available on the spot and the replacement situation was such that early replenishment of the current low reserve of stocks in this market was rather unlikely.

Prickly Ash—Practically no new crop bark reached primary market warehouses during the last collection season and, consequently, the market remained in nominal position at the source and on the spot as well. Fortunately, the call has not been more than jobbing in size for some time past.

Beans

Vanilla—Prices remained firm in all markets. Locally, a seasonal decline in consuming request was reported in development and between now and the end of the current year very little trading was expected. The foreign markets made few offerings to the spot last week and importers said that they stood little chance of obtaining goods when they submit bids to the foreign suppliers.

Flowers

Chamomile—Crops at the two foreign origins have been declared subnormal in size, in one instance because of dry weather and, in another, because of too much rain. While demand at the moment was said to be low on spot, an increase in sales after the turn of the year would probably find reflection in rising prices for prompt delivery goods.

Clover—The feeling at this time is that the current stock, consisting mainly of goods carried over from a year ago, will be sufficient to cope with probable consuming request until such time as another crop may bring a change in the general situation. Some primary market dealers last Summer did not post buying prices for new crop flowers.

Gums

Arabic—The market was reported to be very quiet; seasonal conditions have been added to those prevailing for some time past and it was not expected that much selling would be done between now and the turn of the year. Sorts were fairly quoted at 15½c. to 16c. per pound but it was said that for exceptional quantities, the inside figure might be shaded with a firm order in hand.

Karaya—This market continued to be reported as weak and placed more favorably for buyer than seller. However, open quotations have not been reduced further although they were admitted to be subject to shading because of the general inactivity of buyers.

Herbs and Leaves

Belladonna—Price views on spot were spread widely from 35c. to 50c. per pound and some said that replacement cost would justify the 50c. level. Others indicated that current demand would give little support to that position.

Buchu—Demand was light and mainly for small lots that had little effect on the price position current on spot for some time past. Stocks were said to protect future needs fairly well. Between now and the year-end, stabilized values were expected.

Henbane—Stocks were considered to be rather conservative in size but so also was current demand last week. Undertones continued to be steady and competition in terms of price was restrained.

Rosemary—Spanish material moved up a fraction to 9c. to 9½c. per pound. French held at 10½c. to 11c. and Portuguese leaf was still available at 7c. to 7½c. Demand was strictly jobbing.

Sage—Italian officinalis was shaded to

Imports Detained by FDA

Week Ended Nov. 21

New York

Carob beans, 200 bags: filthy.
Cassia, 7 lots, [illegible] bales: filthy.
Chillies, 3 lots, 418 bags: filthy.
Cloves, 100 bales: filthy.
Coriander seed, 9 lots, 3,164 bags: filthy.
Fenugreek seed, 2 lots, 330 bags: filthy.
Nutmegs, 125 bags: moldy and wormy.
Oregano, 116 bags: filthy.
Pepper, black, 12 lots, 736 bags: moldy and insect bored; excess siftings and pickings, live insects.
Sesame seed, 343 bags: live insects.
Stramonium leaves, 143 bags: filthy.

For Late Market Developments, See Page 4

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EXTRACTS SYRUPS COMPOUNDS TINCTURES RESINS

20c. to 21c. per pound and the Spanish stemless item was raised to 13½c. to 14c. during the past week. Dalmatian material held at 46c. to 47c. per pound for leaf either on spot or afloat.

Sweet Basil—Stocks of French material were near to exhaustion on spot and most of the usual suppliers offered nothing but quoted a nominal market at 92c. No California leaf was reported available but a nominal price of $1.05 was quoted.

Witch Hazel—Foreign buyers continued to be absent from the market. The normal takings of French importers have not developed thus far since new crop became available in rather moderate quantities. Some said that French wine makers usually consume a substantial quantity of this astringent. It is a fact that the French use of witch hazel is more or less a mystery to those who export the item and its use in wine making is equally a mystery to this writer who is fairly well acquainted with the French wine industry.

Miscellaneous

Balm of Gilead—It seems now that current stocks of well dried buds will cope with demand between now and the time when the next crop can have been dried sufficiently to make it merchantable. Prices were said to be quite firm.

Ergot—Prices on NF quality, guaranteed test, ergot were down to $3.50 to No. 4 per pound but no interest was shown in offerings made at that level. Numerous former buyers appeared to have abandoned all interest in ergot, a fact that has brought sales volume down substantially and turned the market toward easier and unsettled position.

Papain—Political unrest in Kenya Colony, British East Africa, has not thus far affected the replacement market on this item. But the situation there is rather acute and almost anything can happen should the situation get out-of-hand still further. Locally, prices on both African and Ceylon powder remained firm, especially when it came to goods developing a good test on examination for strength.

Roots

Calamus—Production of domestic root was moderate. Domestic primary market dealers showed an almost total lack of interest in acquiring stocks during the past Summer. Only one of the major operators included the root in its list of posted items.

Culvers—Most buying lists issued during the past Summer by primary market dealers failed to include this item among those they were disposed to purchase. One dealer did offer to take in some root at prices that had prevailed in 1952.

Echinacea—Most primary market dealers failed to include this scarce item in their buying lists last Summer. One important quarter did offer to buy at prices 15c. above those in force twelve months previous.

Hydrangea—Most prices offered by primary market dealers were so low last Summer as virtually to discourage its collection. Hence, very little was brought in and consumer needs must be supplied from carried over supplies.

Seeds

Anise—Price activity revived. Czech seed was down to 12c. to 12½c. per pound. Syrian was higher at 13½c. to 14c. And Turkish was also advanced, reaching 13½c. to 14c. Other varieties showed no change. Chinese star anise was practically unobtainable; any price would be nominal and subject to confirmation.

Cardamom—Some spot stocks of medium sized bleached material were to be had at $4 per pound; goods afloat were said to be $3.30. Guatemalan decorticated seed was down to $2.40 to $2.45. Green seed remained moderately easy but lacked further change.

Celery—Indian seed had a steadier tone at unchanged prices. French material was in limited supply at 37c. per pound.

Cumin — Iranian seed was down to 15¼c. to 15½c. per pound and Turkish material was also shaded to 14¾c. to 15c.

—Continued on page 70

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Essential Oils, Other Aromatics

Price changes in the essential oils and aromatic chemicals market were chiefly downward, continuing the trend of recent weeks. Depressed prices have recently been a prime source of concern in the trade. Several of the oils, comprising a large part of the market's volume, continued in a weakened position, lemongrass, citronella and orange being examples. One possible source of business stimulation was reported to lie in the low inventories currently carried at the retail level. During the past week price declines exceeded increases and the index fell off .24 point.

Methyl ionone followed the current trend of lemongrass oil derivatives by dropping in price. Like the other ionones, it was available in ample quantities. Cedarwood oil was offered at a slightly lowered price, in spite of the fact that higher replacement costs have been expected in some quarters. Italian lemon oil was offered at lower prices, with the new crop offering some relief to the shortness of supplies. Both natural and redistilled peppermint oils were lowered in price, indicating a shift toward weakened prices. The current good inquiry for mint oils, however, was expected to keep the price from showing any rapid declines.

Dalmatian sage oil was offered at a lower price, although unchanged replacement costs indicated that no general weakening was likely. A similar situation prevailed in vetiver oil, with Bourbon offered at a lowered quotation. Vanillin, derived from eugenol, was lowered in price, with the lignin and guaiacol derivatives remaining unchanged. Coriander and grapefruit oils were offered at lower prices, as were lignaloe wood, mace and distilled Mexican lime oils.

Higher replacement costs brought about a stronger tone in geranium oil. Bourbon oil was directly affected, showing a sizable increase. Birchtar oil prices, both for crude and rectified, were advanced, again as a result of higher costs at the source. Caraway oil made a small gain. Clove oil, already one of the market's highest priced oils, showed a further advance as a result of the greatly increased price of buds. Little possibility of a reduction in the price of this oil was expected in coming weeks.

Market Trends

Prices Advanced

Oil, birchtar, crude, 20c. per lb.
rectified, 10c. per lb.
Caraway, 10c. per lb.
Clove, $1 per lb.
Geranium, Bourbon, $1.50 per lb.

Prices Reduced

Ionone, methyl, 5c. per lb.
Oil, cedarwood, 2c. per lb.
Coriander, 50c. per lb.
Grapefruit, 25c. per lb.
Lemon, Messina, 25c. per lb.
Lignaloe wood, 60c. per lb.
Lime, distilled, Mexican, 50c. per lb.
Mace, 55c. per lb.
Nutmeg, West Indian, 20c. per lb.
Peppermint, natural, 45c. per lb.
redistilled, 45c. per lb.
Rue, 55c. per lb.
Sage, Dalmatian, 65c. per lb.
Vetiver, Bourbon, $2 per lb.
Vanillin, ex eugenol, 25c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
166.57	166.81	166.77	196.36

(For Current Prices see Page 9)

Essential Oils

Apricot Kernal—The arrival of the new crop made the position of this oil clearer as it demonstrated a slight tone of weakness. Prices held steady without change during the week, however, and observers in the trade thought that whatever weakness the oil exhibited would be fairly limited in its effect. Supplies remained ample for most current inquiry.

Bay—Little change has been noted in recent weeks in prices of Puerto Rican and West Indian oil. As a fairly small item on the market, the oil stood in a position of adequate supply for most current demand made for it. No indications were noted to show any immediate change in the price status or the availability of the oil.

Bergamot—Natural oil remained somewhat scarce on the market as imports continued to be under the full volume required here. European demands on the Italian production have been sizable and have cut down considerably on the amount of the oil available for shipment to this country, according to informed observers. With the new crop due after the first of the year, some dealers felt that an easing in the supply situation might be expected, although others held that the situation would remain very much as it has been in the past weeks.

Birchtar—The advance in prices made thirty days ago was repeated in the past week, as dealers were again faced with increased shipping prices from suppliers. Crude oil was advanced 20c., bringing the low offer to $1.90 per pound. Rectified oil made a corresponding advance, going up 10c. to $2.95 per pound. The upward tendency in prices for the oil reflected the generally strengthened prices in effect at the origin.

Camphor—All grades of the oil exhibited a firm tone and held steady at the prices previously in effect. Both white and sassafrassy oil were priced from 26c. per pound. Little change in the price or supply situation was expected in the trade, as observers held that all factors affecting the price of the oil were due to remain quiet and without change.

Caraway—A price increase of 10c. per pound was affected for the oil during the week, bringing the low quotation to $3.35 per pound. The oil has remained steady for some months past and there seemed to be no indication that the recent increase meant further strengthening of prices. Most current inquiry was met without difficulty.

Cassia—Supplies of the oil have dwindled steadily following the enforcement of the embargo on importation from China and transshipment of Chinese oil through other countries. Where it was available, the oil was quoted at $5.25 to $7.50 per pound. The current limited stocks were almost certain to decline further, as no possibility for obtaining replacement was seen in the immediate future.

Cedarwood—A slight upward movement in quotations for the oil was expected by several dealers. In spite of this possibility for strengthened quotations, one offer was made during the week putting the oil at a low price of 48c. per pound, 2c. less than the previous low offer. This price was not characteristic of the position of the oil on the market, however, for in the past week prices generally ranged between 60c. and 70c. per pound.

Clove—The previous low quotation for the oil was withdrawn, raising the minimum offer $1 to $8.50 per pound. With the oil following the cost of buds and steadily advancing in price, many dealers were offering only nominal quotations and were suspending production of the oil until it could be manufactured and sold at a more reasonable price. Users of the oil were turning to eugenol as a substitute where this was possible, since they saw little posibility for an immediate easing in the price of bud oil. Offerings of leaf and stem oil were maintained, making this oil available for those consumers requiring it instead of bud oil.

Coriander — A quotation of $21 per pound represented a decline of 50c. for the oil. The decline of the past week followed the slow but steady downward trend in price exhibited by the oil over the past twelve months. The factors affecting production of the oil indicated that it could be expected to hold steady at the current level without any further immediate decline.

Eucalyptus — Import prices from the countries supplying the oil remained without significant change during the week. A fairly steady demand was reported in the trade, and the feeling indicated that there should be little change in the position of the oil in the immediate future. Prices of 80-85 percent oil ranged from $1 per pound and those of 70-75 percent oil from 85c. per pound.

Geranium—An increase in the price of Bourbon oil was made during the week, bringing the low quotation up to $12.50 per pound, from $11 per pound previously offered. The increase demonstrated the strengthening in prices that was felt generally throughout the trade. Higher replacement costs were cited as the cause of the increase. Algerian oil was available at unchanged prices, offers ranging from $12.25 per pound.

Grapefruit—A very short supply made it a difficult task for users of the oil to obtain their requirements. The shortage has continued for the past weeks without sign of easing. Prices have held fairly steady, although in the past week an offer made for the oil at $2.40 per pound rep-

For Late Market Developments, See Page 4

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resented a decline of 25c. Other quotations ranged to $3.25 per pound.

Lemon—A fairly tight supply situation, prevailing for some time past, has been relieved somewhat by the new crop of Italian lemon oil. Prices for the imported oil have shown a corresponding decline, as offers were received during the week at $5.50 per pound, lower by 25c. than the previous low price for Italian oil. California oil was unchanged in price during the week, quotations ranging from $5.75 to $6.05 per pound, depending upon brand. With some of the tightness in supply for this oil eased, the consumer was due to gain an advantage in price and in ease of obtaining his requirements.

Lime—A price of $6 per pound for distilled Mexican oil was offered during the week, representing a decline of 50c. from the previous low price. Distilled West Indian oil remained without change in price, being available from $7.40 per pound. Prices for expressed West Indian ranged from $7.25 per pound, while terpeneless oil was priced from $45 per pound.

Mace—A sudden decline was effected by this oil when an offer was made at $2.95 per pound, lower by 55c. from the previous low price. Other offers up to $4.25 were maintained and showed no inclination to decline. The current low offer represented the sharpest drop in price exhibited by this usually steady oil in recent months but was not an indication of a generally weakened market, according to informed sources.

Nutmeg—West Indian oil was offered from one source at $2.95 per pound, this being the week's lowest quotation and less by 20c. than the next quotation in the price range. No weakening of the market for this oil was indicated by the low price, it was reported, as the oil continued to remain generally stable and firm in tone, in spite of occasional lower offers. East Indian oil showed no change in price during the week.

Orange—A continued weakness was the feature of this market during the week, as all oils were available freely at prices well below those prevailing thirty to sixty days ago. California oil was priced between 90c. and $1.75 per pound while Florida oil ranged from 90c. to $1.55 per pound, depending upon maker. Some bids for oil were made and accepted at prices somewhat lower than this minimum, it was reported. The weakened price situation was understandable in view of the recent large supplies made available on the market at a time when demand has been no greater and possibly somewhat less than normal. No immediate strengthening in the price of these oils was seen in informed circles, as abundant supplies were expected to continue to work to the advantage of the consumer by keeping prices depressed. Italian oil was offered at prices ranging widely, starting from $4 per pound. Distilled oil quotations ranged upward from 70c. per pound.

Patchouli—Displaying a firm undertone, this oil has remained steady in price in recent months. No change was noted in prices during the past week, as the oil remained available from $7.25 to $8.75 per pound. Little change has been

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noted of late in the amount of inquiry for the oil, and most demands for it could be met without difficulty.

Peppermint—Both natural and distilled oils were offered at prices during the week that were considerably under the previous low quotations. An offer of natural oil at $5.15 per poupnd was considerably under the prices prevailing on the market, as was an offer of redistilled oil at $5.45 per pound. With peppermint oil exhibiting varying tendencies of late, a shift toward weakened prices seemed to dominate. Until an improvement appeared, market prices favoring the consumer appeared likely.

Rue—A sizable decline in the price of this oil was made when one source offered it at $1.95 per pound, lower by 55c. than previous quotations. Prices had held steady for a considerable length of time prior to this decline. Quotations in the past week ranged up to $2.65 per pound.

Sage—A lower price for Dalmatian oil was offered during the week, with a quotation of $7.50 per pound, down 65c. from the earlier low offer. The oil has remained, in spite of the shift downward, in a relatively unvaried position, with little change noted in replacement costs. Spanish oil was offered from 90c. per pound, this low price indicating the difficulty experienced by the country of origin in maintaining the price floor of $1.25 per pound.

Vetiver—Bourbon oil was offered during the week from $20 per pound, this quotation being $2 less than the previous low offer. With replacement costs remaining unchanged, however, a general downward trend in prices was considered unlikely by most observers. Haitian oil remained firm, offers ranging from $17.50 per pound.

Aromatic Chemicals

Ionones—The advance in price noted for methyl ionone during the previous week was in part reversed with a decline of 5c. per pound during the past week. The material was available from $3.85 per pound. With lemongrass oil currently in good supply and available at weakened prices, the derivatives of this oil were directly affected. Production of all ionones was maintained at a good rate, putting the consumer in an easy position for obtaining the amounts that might be required. Prices of alpha and beta ionones showed no changes in the week just past.

Vanillin—The eugenol derivative was offered at a lowered price during the week when it was made available at $6.50 per pound. This price was 25c. lower than the low price prevailing earlier. An adequate production has been maintained, it was reported by members of the industry, and consumers were experiencing no great difficulty in obtaining the amounts of the material needed. The lignin and guaiacol derivatives were available at unchanged prices and were also available in quantities sufficient to cover the current requirements of the market.

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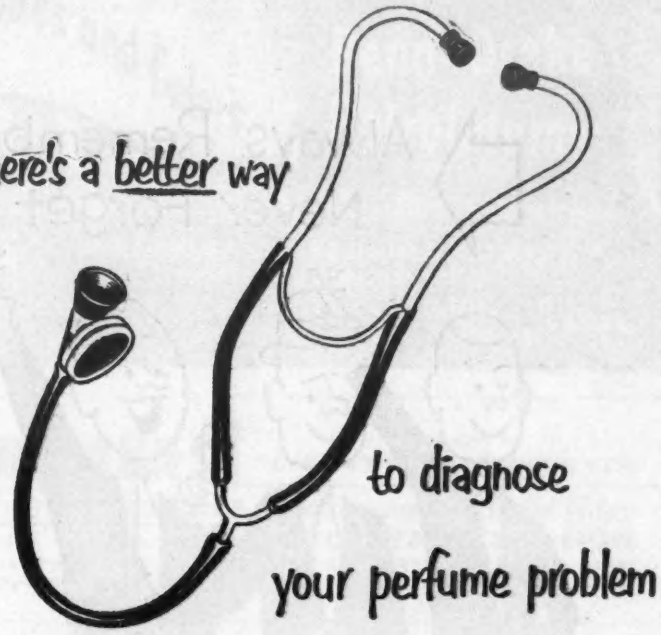

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Botanical Drugs

—Continued from page 66

Czech and Moroccan seed remained unchanged.

Poppy—Dutch seed lost strength and prices finally declined to the basis of 16¾c. to 17c. per pound. Polish and Turkish seed showed no sympathetic easing of values.

Spices

Cassia—Shortage in spot stocks grew more acute and each sale from the limited supply available tends to either strengthen or advance prices. Higher quotations were:—Batavia, cuttings, 16c. to 16½c. per pound; longstick, 20c. to 20½c.; Saigon, all medium, 44c. to 45c.; broken, a fraction lower at 36c. to 36½c.

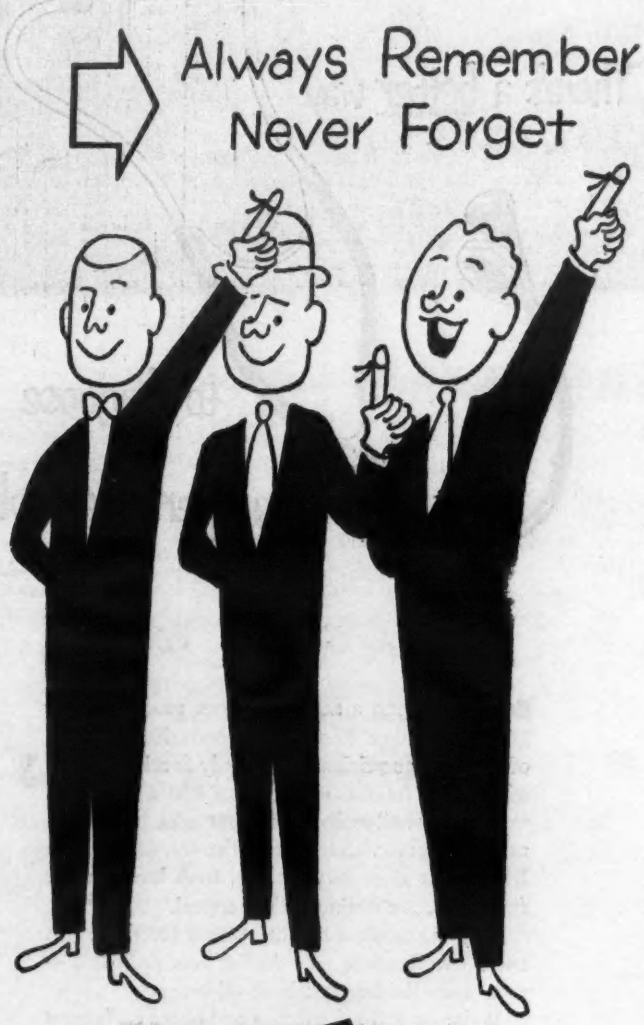
Clove—A limited quantity of Zanzibar spice on the spot was held at $1.61 per pound but there was not general distribution of even small holdings. Source prices were very firm and tended to advance.

Ginger—Some of the stiffening has departed from prices. African root receded to 14½c. per pound and No. 3 Jamaica was down to 16c. However, unbleached Cochin root was higher at 20c., that article having been slow to develop a firmer position, in spite of the general price depression in all varieties of root during the past several months. Talk of the future suggested that over the long run, low prices will result in the next crops being much reduced.

Mace—Siauw No. 1 was higher at $1 per pound. West Indian was still available at 85c. to 86c. Demand was for jobbing lots.

Pepper—Activity in black pepper was small last week. Either because the need to cover future needs was less or because inventory taking lies directly ahead of grinders, sales usually involved comparatively small lots. However, on the whole, asking prices on spot were higher and most quotations during the week were at or around $1.59 to $1.60 per pound. Red peppers were scarce on spot and tending higher. Primary markets showed no easing of values and futures also tended to advance. Local quotations at higher levels included. Mombassas for November-December shipment at 44c. to 45c. per pound, and Zanzibars at 43½c. for goods afloat. Japanese hontakas for November-December shipment were down 1c. to the basis of 49c. to 51c. White pepper remained $1.50 but might possibly be bought at 1c. less on a firm order.

Friday prices on black pepper were as follows:—Malabar, spot, $1.60 per pound; Lampong, afloat, $1.45; November shipment, Lampong, Malabar, no prices; December shipment, Malabar, $1.33 to $1.36.



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Petroleum Derivatives

Prices of all petroleum products remained steady and followed the trend of the past four weeks, during which no significant price changes have appeared and the index has remained unchanged. A good situation prevailed in regard to supply, with toluol being the only product not available in sufficient quantity to fill the demands of the market. The tightness of this material was demonstrated by the government's action in issuing directives to all producers, calling for a large percentage of their monthly production. Continued large requirements by the military for use in aviation gasoline and for nitration purposes, together with current industrial demands, have exceeded manufacturers' production capacity. The pinch was reasonably certain to be felt until after the first of the year.

Xylol remained in good demand, with production able to fill most requirements without any noticeable amount of tightness. Aliphatics were available in quantities ample for current demands, presenting no problem in regard to supply. Production of higher boilers and intermediates put these materials in a comfortable supply position.

Steady fuel oil prices were maintained in spite of an exceptionally quiet week and large inventories. The effect of continued warm weather was felt in most parts of the country and brought storage facilities to near capacity levels. A recent increase in production in natural gasoline and allied products was reported. Liquefied petroleum gases were generally available in quantities sufficient for most average orders, although here the supply situation was affected by the weather and could alter quickly. Orders for waxes continued at a brisk pace but without reaching ahead of production.

Solvents and Diluents

Cleaners' Naphtha—An ample amount of the material was available on the market to satisfy current consumer needs. Consumption has been large but has remained steady, presenting no problems to producers. Current production schedules were maintained without difficulty, making satisfactory delivery of the material possible. Sales were made at the prices previously in effect.

Mineral Spirits—A good demand was reported by manufacturers during the week, as most consumers continued to place orders of customary sizes. No difficulty was experienced by the producers in meeting this demand from their current output. The situation of balance was expected to continue without interruption in the immediate future.

Rubber Solvent—A good supply of the material was available on the market, presenting the consumer with an easy task in obtaining his requirements. The situation of balance between production and demand was expected to continue, as no difficulties were foreseen in the trade to disturb the current equilibrium. Barring unexpected changes in the supply of basic raw material involved, orders of any normal size could be handled promptly. The price status of the material remained unchanged.

Toluol—The government has issued directives to all manufacturers of toluol for a large part of their December and January production. The action came as a result of the continued shortage of the material. With the government requiring large amounts for aviation gasoline and for the production of TNT, and industrial demands running high as well, the producers have found it impossible to put the needed amounts on the market. The directives that the government has begun issuing apply to both nitration and aviation gasoline grade toluol. Whether the directives would continue to be issued on a month to month basis was not immediately known. Some easing in the tight supply situation was expected in the spring of next year, when one manufacturer expects to have additional facilities for the production of toluol in operation.

VM&P Naphtha—An active demand from consumers kept the material moving in good volume and prevented any sizable buildup in supplies. Production has shown no lag in past weeks and continued at a level ample to fill the current needs of the market. With the demand from industrial users active and showing no tendency to fall off, this market was expected to remain healthy for the foreseeable future.

Xylol—Current production has continued to fill the needs of the market without any shortages developing. Some production facilities were turned to making toluol, as a result of the tight situation for that material. Demands for xylol have remained steady and have been met without difficulty. Prices previously in effect showed no change during the week just past.

Market Trends

Prices Advanced
None

Prices Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month
104.13	104.13	104.13

(For Current Prices see Page 9)

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended November 15 totaled 266,662,000 barrels, according to data reported to the Bureau of Mines. Compared with the total of 267,699,000 barrels for the preceding week, this represents a decrease of 1,037,000 barrels comprising a decrease of 716,000 barrels in stocks of domestic crude and a decrease of 321,000 barrels in stocks of foreign crude.

Lighter Fractions

LPG's—With mild weather continuing in many parts of the country, sales of liquefied petroleum gases have been slow. Stocks remained large in most areas and shipments on most demands could be made quickly and without difficulty. Propane was available in the east, as in other parts of the country, in good supply. Somewhat smaller amounts of butane were available, and in some areas it was closer to a condition of tight supply, as is the usual case during the winter season. Manufacturers qualified their reports of easy availability of these gases with the statement that the situation could change overnight, if cold weather should arrive quickly. The prices of previous weeks were held firmly.

Waxes

Microcrystalline—A feeling of satisfaction was encountered in the trade concerning demand for waxes in the past week. All grades of microcrystalline wax were reported in continued good demand. Industrial users have maintained the increased level of consumption that has improved the tone of the market of late. This increased rate of demand gave evidence of continuing for some time. Prices remained without change and were firm, no shading of offers being encountered to any noticeable extent.

Paraffin—The healthy aspect exhibited by the wax market included paraffin waxes. Current production has been maintained at a good rate, with demands of the market keeping close to the rate of production. Export demands, however, have not improved in any sizable quantity, presenting a side to the situation that many manufacturers hoped would show improvement. Good shipping schedules have been maintained, enabling the consumer to obtain his requirements without difficulty. No price changes were recorded, as quotations remained firm.

Miscellaneous

Fuel Oil—Inventories of all fuel oils rose across the country as buying lagged. The continued mild weather was blamed in most localities for the sluggish trend in sales, which has filled storage facilities to a high level. Prices held steady in most areas in spite of the quiet demand. Refiners and dealers agreed that a spell of cold weather was needed to stimulate sales to the volume usual for this season.

Natural Gasoline—The daily average production of natural gasoline and allied products in September, 1952, was 607,000 barrels, according to a Bureau of Mines report. This figure showed an increase of 19,000 barrels per day above that of August. For the first nine months of 1952, daily average production exceeded 1951 by 7 percent.

For Late Market Developments, See Page 4

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Federation of Paint and Varnish Production Clubs

Thirtieth Annual Meeting, Chicago, Nov. 20-22

Gustave H. Wescott, of the Philadelphia laboratory of E. I. duPont de Nemours & Co., was installed as president of the Federation of Paint and Varnish Production Clubs at the conclusion of its thirtieth annual meeting November 22 at the Palmer House, Chicago. He succeeded Hirman P. Ball, secretary-treasurer of the Ball Chemical Company and of the Cleanola Company, both Pittsburgh, Pa., who served as president for the 1951-52 term.

Dr. C. J. Overmyer, of Elliott Paint & Varnish Company, Chicago, and a member of the Chicago club, was elected president-elect for the coming year. N. P. Beckwith, of the Rinshed-Mason Company, Detroit, Mich., was reelected treasurer, and C. Homer Flynn was continued as executive secretary of the federation.

Three members were elected to the federation's executive committee. They are as follows:—Carl L. Englehardt, Brooklyn Paint & Varnish Manufacturing Company, Brooklyn, N. Y.; L. B. Odell, James Bute Company, Houston, Tex., and C. L. Smith, Vi-Cly Industries, Inc., Los Angeles. Mr. Englehardt is a member of the New York club; Mr. Odell belongs to the Houston club, and Mr. Smith is from the Los Angeles club.

The New England club has a new member on the executive committee. He is Robert Andrews, of Carpenter-Morton Company, Everett, Mass., who has replaced S. O. White, of Norfolk Paint & Varnish Company, South Quincy, Mass., who has resigned. In addition, two past presidents were also selected to serve on the committee. They were R. J. Smith, of Indianapolis Paint & Color Company, Indianapolis, Ind., and a member of the CDIC club, and R. C. Stark, of Pratt & Lambert Company, Buffalo, N. Y., and a member of the Cleveland club.

Club Paper Awards

Featured at the banquet session on the evening of the twenty-first was the award of honors to affiliated clubs for the best research papers presented at the meeting. First prize in the practical paper category went to the Chicago club for its work on "Instrumentation for Continuously Recording Viscosity of Resins and Polymers in Large Reactors at Processing Temperatures." Second prize in the practical group was awarded to the Cleveland club for its paper on the "Painting of Plaster Surfaces."

In the research group, the first prize was awarded to the Houston club for its work on "A Study of the Factors Affecting Heat Resistant Coatings." The second prize was won by the New York club for its fourth paper on the subject of pigment dispersion.

The Ernest T. Trigg award, made to that club secretary of all federation clubs who kept the best minutes of club meetings during the year, was won by W. G. Duhig, of Cook Paint Company, Houston, Tex., secretary of the Houston club.

Research Keynote Sounded

Dr. J. S. Long, of Devoe & Raynolds Company, New York, set the keynote for the meeting with an address on November 19 entitled, "Research and Education." Dr. Lang stressed the point that as paint chemists, federation members should develop the policy of personally using research and education as a means to more purposeful living.

The utilization of members' time at the job in eight hours of constructive thinking for the good of the industry and the company by which they are employed should be matched, he said, by their not "frittering" away their eight other waking hours on trivialities. Less time should be spent in reading trashy and spicy newspaper stories of personal troubles in the public press, he went on, and more time should be devoted to reading scientific literature for their professional education and the Bible for spiritual development.

Dr. Long urged the pursuit of gainful hobbies so that when retirement age arrives, federation members will have an avocation with which to occupy their time for the good of themselves and of mankind. Meanwhile, he stated, good health habits should be practiced intelligently and a sincere effort should be made along the lines of active interests in community and civic affairs. He particularly called on all members of the federation's affiliated clubs to actively engage in some form of club committee activity, noting that it would serve two purposes—the individual's own benefit and the overall good to the industry.

'Paint Course Package' Outlined

At the education session, under the chairmanship of M. A. Glaser, of federation's educational committee, the so-called "Paint Course Package" was outlined. A series of educational aids in paint course technology, the package largely includes the following:—

An elementary paint laboratory manual, written by E. H. Ott, of the federation's educational committee, and Prof. E. G. Bobalek, of Case Institute of Technology, which demonstrates the fundamental principles and methods used in the reactions of paint chemistry; a group of chemical and engineering experiments demonstrating

Wescott Installed as President

The federation's new president, Gustave H. Wescott, was born in Painter, Va., in 1901. He graduated from Painter High School and earned his B. S. degree at the University of Richmond in 1923.

Mr. Wescott became associated with the Philadelphia laboratory of E. I. duPont de Nemours & Co. in that year. Since that time he has been employed in all phases of laboratory work in the decorative and protective coatings industries and is presently assigned to the Marshall Laboratories in technical sales development at Philadelphia.

The federation's new leader has long been an active member in FPVPC, and for the last two years has been a member of its executive committee. He has served as host as chairman of the host, Paint Industries Show, program and meetings committees, and is credited with compilation of the federation's Exposure Standards Manual.

Mr. Wescott is a member of Phi Delta Omega and Omicron Delta Kappa fraternities, the American Chemical Society and the duPont Country Club. His hobby is salt water fishing.

In 1924 Mr. Wescott married Helend Townsend Ennis. They live at 197 Bryn Mawr avenue, Landsdown, Pa., and have two sons, Gustave and Robert, who are attending Pennsylvania State College and the Philadelphia Museum School of Art, respectively.

Gustave H. Wescott

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esterification, polymerization, synthetic resins syntheses, saponification and other phenomena compiled by C. W. Selheimer, of Illinois Institute of Technology.

An outline of a suggested sixteen-lecture paint technology survey course prepared with the assistance of Saul A. Fine, of the Chicago club; a comprehensive bibliography on paint testing and evaluation as well as one on exterior house paints, a compilation of literature on paint driers; a list of available movies dealing with paint subjects; a list of available books on paint, and suggested symposia subjects.

Industry-Education Cooperation

The featured speaker at the education session was Dr. J. T. Rettaliata, president of Iiilnois Institute of Technology, who discussed "Cooperation Between Industry and Education." The partnership between the two, he stated, boiled down to the fact that chemists and engineers "'are products of education, and they are employed largely by industry."

While this "could mean only an involuntary kind of cooperation forced by the law of supply and demand," Dd. Rettaliata pointed out that in practice "there is a great deal more to it than that." It is rather, he noted, a mutually shared responsibility of both educational institutions and industrial firms, adding that the closer this responsibility is charged by cooperative efforts, the greater will be the benefits to the student, the school, the industry and the community.

He stated that because of their mutuality of interests, educators and industrialists must face up to the following two facts:—"First, an ever greater amount of voluntary cooperation between them than we have seen in the past is essential if privately supported educational institutions are to survive. Second, such institutions must survive if industry is to continue to receive the benefits it needs from a free educational system."

Noting that cooperation between education and industry takes a number of forms, Dr. Rettaliata cited the following things that Illinois Tech and other American educational institutions are doing for industry:—

How Education Helps Industry

"1. We provide, for any company that wants to participate, a cooperative educational program to produce practical engineers for that company. This program enrolls students who spend one semester at Illinois Tech and then alternate semesters working for the company and coming back to study. Many companies take a young man from their plants to enter this program and thus provide themselves, within five years, with a graduate engineer who also has a broad practical background. In other cases, we aid the company in finding the candidate.

"2. Our evening classes provide industry with engineers and executives from within its ranks. The demand for engineering graduates today far exceeds the supply. A vast source of technical and administrative personnel, however, is at hand within industry's own plants. Capable men and women are there, waiting only for the opportunity and the encouragement to upgrade themselves. Our evening classes enable them to do so.

"3. Upon request, Illinois Tech conducts special classes enrolling only the employees of one company for specific instruction. Sometimes these special courses are conducted on the Iillinois Tech campus; frequently, however, they are conducted in the company's plant. For example, in recent years Illinois Tech instructors have conducted classes at the Allis-Chalmers plant in Milwaukee and the Caterpillar plant in Peoria.

"4. Illinois Tech undertakes both fundamental and applied research of tremendous importance to the continued health and growth of industry. Scientific research, we believe, is the pacemaker of progress.

"5. Illinois Tech, along with many other institutions, cooperates with a wide variety of companies and associations in the establishment of graduate fellowships. The sponsoring organization pays the tuition and living expense of a selected graduate student who performs research in that organization's field. This program has two-fold benefit for the sponsor of the fellowship. It stimulates the discovery of new knowledge in the field, and it produces competent young scientists who become trained to enter the employ of companies in that field with a knowledge of its technical problems."

How Industry Helps Education

For its part, the Illinois Tech president stated, industry also does a number of important things for education. "They are many," he declared, "but perhaps the most important is the financial help given." This help, he went on, often is in the form of undergraduate scholarships or graduate fellowships.

Paint industry fellowships were inaugurated at Illinois Tech in 1949 with the establishment of a fellowship sponsored jointly by the Chicago Paint, Varnish and Lacquer Association and the Chicago Paint and Varnish Production Club, he said. On the master of science level, it has been offered continuously since 1949.

He also cited the financing of a fellowship by the federation itself in 1950 dealing with "the problem of noxious fume control in paint and varnish production operations." Aim of the project, he said, is to find ways "to eliminate or at least control these fumes." In addition, he reported that the two Chicago paint groups mentioned earlier have sponsored several undergraduate and graduate courses relating to paint and varnish technology at Illinois Tech, and have supplied the institute with needed pieces of laboratory equipment.

Latex Paints Discussed

A round table discussion on the subject of "Latex Paints" was conducted, with Mark Westgate, of the scientific section of the National Paint, Varnish and Lacquer Association as moderator. Facts brought out in response to audience questions directed at the panel of experts, were the following:—

The latex portion of the vehicle in latex paints may be homopolymers such as polystyrene, or copolymers such as that of vinyl chloride/vinylidene chloride, or butadiene/styrene. Most of the good qualities and desirable features of a latex paint are dependent upon the homopolymer or copolymer portion of the vehicle, and should not be diluted with any more modifying vehicle components than is necessary to secure proper paint performance with respect to adhesion and working properties. It was felt that differences in performance in latex paints were not so much due to whether or not the paint was made with a homopolymer or a copolymer, as they were due to variations in the emulsion system used.

Efflorescence Problem

Efflorescence in latex paints is caused primarily by sodium sulphate which under damp humid conditions becomes hydrated. One of the best ways to overcome this defect in latex paint formulation is to use potassium salts as a partial replacement for sodium salts, so as to keep the ratio of potassium to sodium at approximately three to one. This results in the formation of a double salt less likely to become adversely hydrolyzed.

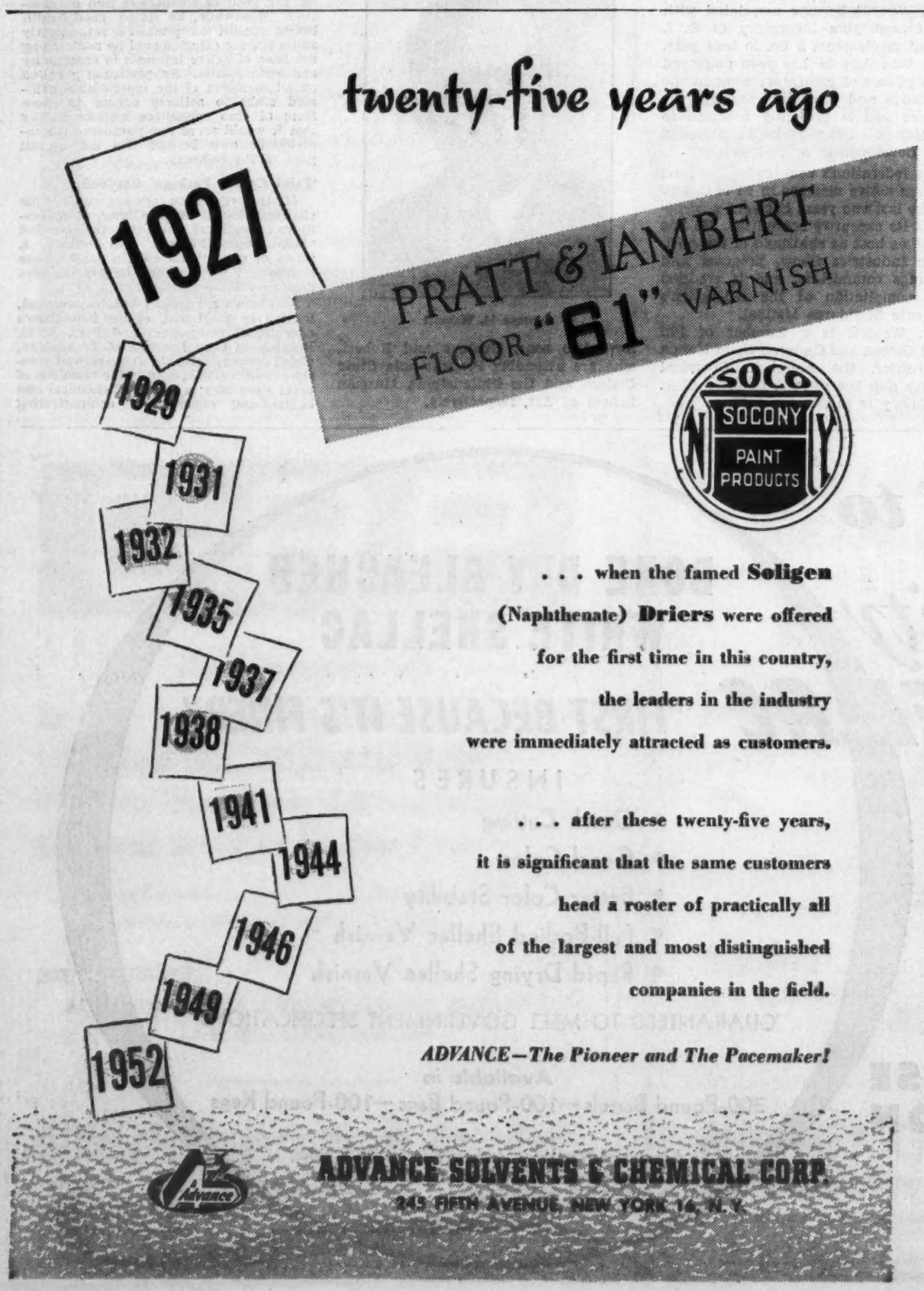
With respect to the hydrolysis of casein in latex paints resulting in unstable package consistencies, it was pointed out that the way that the casein is prepared has much to do with the viscosity drift in latex paints. A high pH tends to promote a lowering of viscosity on storage, while insufficient cooking or processing tends to promote an increasing viscosity with age. There are other methods also available for controlling this problem.

Color Migration

On the matter of color migration in latex paints, it was felt that this problem was most easily solved by proper selection of the pigments, and also by their more complete dispersion.

The problem of paint pile-ups at the lap points when latex paints are applied over very porous surfaces, was felt to be one best controlled by effective changes in the colloidal system of the paint.

On the pros and cons of modifying latex paints with either a protein or an alkyd resin, this was found to be an area of considerable disagreement in the industry. Best working properties were generally felt to be obtained by protein modification and best performance obtained if the amount of modifying protein were kept to a minimum. However, it was claimed by others that alkyd resin



Dr. C. J. Overmyer

Federation President-Elect

modification leads to easier application, better adhesion, and better film build.

Freeze-Thaw Stability

With respect to freeze-thaw stability, this was felt to depend not only on the copolymer or homopolymer used, but on the stability induced by the protective colloid used. It was said that consideration should be given to the internal phase of the emulsion so that at low temperatures it is not too sticky or tacky. If a latex paint is made which stands up so as to give good brushing and film properties after a four time cycle of twenty-four hours at minus 10 degrees F. and twenty-four hours at room temperature for each cycle, this was felt to be adequate for all practical purposes. The freeze-thaw stability of a paint can be improved by hardening up the internal phase through the use of a different colloid modifier.

Problems of film integrity resulting fro migration of the plasticizer were felt best solved by being certain to use plasticizers which are entirely compatable. Typical latex paints were said to be not yet generally satisfactory for exterior use from a durability standpoint. While they may be applied with a hand roller, they are not adapted to use in mechanical roller-coaters such as in lithographic or printing commercial operations. Latex paints for such operations could be made, because of the wide pattern of flow characteristics that are possible by varying the colloid system used in the paint.

Use of Naphthol Pigments

On the matter of the use of naphthol pigments in latex paints, it was said that some are satisfactory and some are not, depending upon the pigment, because the light-fastness of a naphthol depends upon the substitution of such things as alkyl groups on each side of the "azo" bond.

It was felt that lead chromate pigments could be satisfactorily used in latex paints, but if the surface over which such a pigmented paint was applied happened to be excessively alkaline, the alkali from the surface might adversely affect the color.

It was felt that among the outstanding weaknesses of the butadiene/styrene system of latex paints was their questionable adhesion over smooth surfaces, or in cases where the film gets broken or disrupted, so that moisture can get behind it. It was pointed out that not all the basic answers are yet known about latex systems, of themselves, quite aside from their modifications.

One adverse thing about latex paint manufacture is the fact that when a batch turns out bad, it is utterly bad, and cannot be salvaged by blending off with other materials as can regular orthodox paints.

Interior Durability

With respect to interior durability of latex paints and their resistance to nascent oxygen and ozone in the atmosphere, that so rapidly promotes the deterioration of vulcanized natural rubber, latex paints were held to be satisfactory. Oxygen bomb tests indicate that latex paint films are less affected by oxygen than are good alkyd resin films.

Exposures on inside surfaces of latex paints on walls since 1946 to date, along with such films top-coated with both latex and oleoresinous paints five or six times indicates no failures of high quality latex paints.

It was recommended that mercury fungicides be incorporated in the plasticizer, before the plasticizer is added to the aqueous phase of the emulsion.

As to the effect on the final latex paint film of currently marketed catalytic chemicals designed to speed the rate of cure of latex films, it was reported that to date no adverse film embrittlement had been noted. With respect to overcoming the problem of rancidity development in the protein portion of the vehicle, the best advice was to use an ample quantity of fungicide and preservative, and to keep the range of pH at 9 to 10.

In regard to the use of cadmium pigment in latex paints which are likely to be applied over alkaline surfaces, it was stated that the performance of reds would only be fair, whereas the performance of yellows could be expected to be good. Cellulostic protective colloids were felt to have a very definite place in the latex paint field, current use practices being mostly as a partial, but not whole, replacement of protein.

Papers by Affiliated Clubs

Pigment Dispersion Study—Part 4

New York Club

Continuing its study of factors affecting the dispersion of pigments in organic vehicles, the New York club set out to determine in what manner the solvent portion in a low solids mill base can be modified in a small amount, to accomplish three desirable features:—First, to improve the dispersive properties of mineral spirits toward rutile titanium dioxide; second, to effectively raise the vehicle solids content in an alkyd resin solution for mix and roller mill grinding, without increasing working viscosity, and third, to improve the dispersion obtained by various mechanical procedures under the same conditions of operation.

In its first report on the problem of dispersion, the New York club in its early work developed a special type of finesess gauge, in cooperation with an instrument manufacturer, which is known in the industry now as the New York Paint and Varnish Production Club fineness gauge. In its second report, working with a simple rutile titanium dioxide 52-R-13 alkyd resin, mineral spirits mill base, the desirability of controlling mixing paste composition and consistency for maximum roller mill efficiency was disclosed.

In its third report on dispersion, the club continued its study of roller mill procedure, and extended its study into the field of pebble mill operations. A two-stage roller mill grinding procedure was developed, and its principle applied to other types of alkyd resins and vehicles. In the pebble mill studies, the excellent pigment wetting properties of the 52-R-13 type of alkyd was demonstrated, as well as the poor wetting properties of mineral spirits.

Accordingly, this study of solvent effects was aimed directly at overcoming the adverse action of mineral spirits. Solvent additives used to bring about a more rapid reduction of alkyd viscosity so that at the same viscosity of vehicle, a higher vehicle solids would be had, included higher solvency partial aromatic hydrocarbons, terpene solvents, high flash coal-tar naphtha, and diethyleneglycol and ethyleneglycol ether solvents.

Of the solvent additives used, the glycol ether type solvents were found to be the most effective in mill base use, since they reduce alkyd resin viscosity sharply, acting somewhat like such polar solvents as alcohols. It was found that the most efficient operation of mixer-roller mill dispersion is obtained by using a vehicle at the optimum tack level. This tack level, it was stated, is obtained at a vehicle viscosity of around Z-3 on the Gardner-Holdt viscosity tubes. The optimum viscosity of the vehicle should be obtained

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Driers—*Continued*
  Manganese-Zinc-Iron
  Octoic Acid Driers
    Lead-Cobalt-Zinc
  Witall (Tall Oil) Driers
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Esters
  Butyl Oleate
  Butyl Stearate
  Dibutyl Adipate
  Dibutyl Phthalate
  Methylcyclohexyl Stearate
Lead Linoleate
Lead Oleate
Metallic Stearates
  Aluminum Lithium
  Barium Lithium Hydroxy

Metallic Stearates—*Continued*
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  Calcium Sodium
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Getting Optimum Viscosity

In producing this optimum viscosity at highest vehicle solids, the glycol ether solvents were found to be the best in efficiency because this type of solvent has been interpreted as separating associated resin molecules to provide greater polarity, in addition to its ability to reduce viscosity.

The action of such a solvent was believed best confined to use in mill base operation, and would not be effective as an additive to the finished dispersion. The three objectives of this solvent additive study were deemed to have been accomplished by the use of such solvents as ethyleneglycol monobutylether.

Painting of Plaster Surfaces

Cleveland Club

Efforts were made to establish a method of testing paints on a plaster surface in the laboratory, which would have practical significance in predicting paint performance over plaster in actual use.

Various plaster mixes for test panels were considered, and the recommendations of the Gypsum Association were adopted. A plaster mix consisting of two-thirds lime and one-third gauging plaster was adopted. The lime putty-lime water slurry was allowed to soak twenty-four hours, then the gauging plaster was added and discs were molded for test specimens.

Early work with these discs indicated that what might be regarded as paint failures were really plaster failures, because plaster discs subjected to high humidity conditions tended to expand and swell due to increased hydration of contained oxides. This meant that often plaster failures are responsible for trouble blamed on the paint. Making the plaster mixture with the new type S lime, which in the course of its manufacture is completely hydrated at elevated temperatures, resulted in discs which did not unduly expand or swell under use in test procedures. Discs so made were adopted as standard for the test procedure.

First Series of Disc Tests

Tests were made in which the painted discs were subjected to 100 percent humidity on the unpainted side and zero humidity on the painted side. The feeling was that this would give an accelerated test which would produce film failure by causing the moisture to move through the plaster disc, dissolve, ionize, and deliver water soluble salts to the underside of the paint film, the actual moisture vapor itself passing through the film and evapoating. It did not work. No paint failures were obtained in a two-week period.

Next, tests were run under conditions of 100 percent humidity on both sides of the disc, but the results were equally unsatisfactory. Then elevated temperatures were resorted to, with somewhat better, but generally unsatisfactory results. In an effort to eliminate oven work, infrared heat was resorted to, but not satisfactorily because of lack of temperature control and the adverse influence of drafts. Attempts were made to accelerate the test by exposure of the painted films to ultraviolet rays, and to oxygen, but these measures proved unsatisfactory.

Llewellyn, in his work, "Some Paint Problems of Building Materials," reported by the Oil and Colour Chemist's Association, showed that soluble sodium and potassium salts in plaster reacted in the presence of moisture in free lime plaster with the lime to form sodium and potassium hydroxides, and that these were the real offenders in causing paint film failures.

Heretofore, in trying to develop an accelerated test, distilled water had been used as the moisture source. On the basis of Llewellyn's work, distilled water in these tests was replaced with a 2 percent solution of sodium hydroxide. The sodium hydroxide solution accelerated the tests to a point where a complete test could be run in twelve days, or ten working days.

To date this work indicates that elevated temperatures has an extreme effect in accelerating the test of paints on plaster, but may not be very accurate. Type S lime is far superior to type N or other limes in making the plaster discs, because the lime can be applied immediately after mixing and there is no buckling or swelling of the molded disc. This work verified the work of Llewellyn.

There remains to be developed a satisfactory system of grading the paint failures and correlating them with practical results. In this regard it should be pointed out that in actual plaster practice, little, if any, is made with type S lime.

Relationship of Plant Capacity and Finished Product Warehouse Capacity

New England Club

The plant managers committee of the New England club felt the necessity of trying to get some concrete answers to this problem of inventory capacity versus production capacity, because the great bulk of the paint manufacturers are more concerned with production and tend to leave the matter of shipping and inventory to take care of itself. Yet, efficient plant operation and the matter of getting the most out of every invested dollar becomes increasingly important under today's high cost of labor and production.

After considerable deliberation, the committee decided to base its thinking on a plant manufacturing a well-rounded "trade sales" line, running in volume to approximately 1,000,000 gallons a year. Such a plant would have some twenty lines of pigmented products, composed of at least two hundred separate items packaged in an average of three-and-one-half sizes. A production rate of some 4,000 gallons per day was assumed.

Computation of Inventory

Individual thinking varied widely at first comparisons. If it is considered that one case of each size of an item totals ten gallons, then 200 items amount to a stock of 2,000 gallons, which if turned over ten times a year brings the total inventory involved to 20,000 gallons. Obviously, one case of an item is wholly inadequate inventory, and if this is changed to fifty cases of each sized contained, an inventory of 1,000,000 gallons is involved.

Another wide difference in the initial opinions was involved in the matter of what major pieces of equipment for grinding and thinning would be required by the typical plant of this size. These differences in opinion were the result of different members of the committee basing these estimates on the type of equipment and shifts worked. At first, this led to realizing that the number of shifts worked has a large bearing on this subject.

Because of the important effect of shift work on the cost of operations, detailed studies were made on the effect of expanding production operations from one shift to two or three shifts. When this is done it was found that:—

Eight Findings Listed

1. Hourly wage roll costs will increase to the extent of the shift wage rate differential paid.
2. Hourly wage roll cost will decrease per unit of work to the extent that clean-up and start-up operations are eliminated. This happens once on a two-shift operation and twice on a three-shift operation. Some thirty minutes of productive work time would be saved for each shift added.
3. Hourly wage roll costs will increase slightly if the lunch hour is absorbed as a paid period in order to divide the twenty-four hour day into three equal parts.
4. Salary costs for supervisory personnel will remain the same per wage roll employee if full second and third shifts are operated, or if supervisory personnel are assigned to shifts in the same ratio as is customary on the first shift.
5. Management and office expense is likely to remain unchanged.
6. Supplies and equipment use costs will increase in a ratio equal to or slightly lower than the increased production.
7. Maintenance costs should be proportional to the increased production.
8. Power increase costs would generally be in line with increased production, but would be subject to certain variations. Light would increase several hundred percent, but

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AZO-50-L is a 50% leaded zinc oxide possessing the same qualities as AZO-35-L.

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AZO-35-M is a blended 35% leaded zinc oxide with an acicular type particle. It produces medium consistency paints possessing excellent weathering properties.

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AZO-ZZZ-11 is an American Process, lead-free zinc oxide having medium oil absorption, acicular particle shape and is relatively free from colloidal "fines". Has good white color and imparts exceptional weathering qualities to exterior paints.

AZO-ZZZ-22 is similar to AZO-ZZZ-11 except for its high oil absorption and its larger acicular particles which give heavy body.

AZO-ZZZ-33, low oil absorption, is a definitely acicular type zinc oxide, chemically identical with AZO-ZZZ-11 and AZO-ZZZ-22,

AZO-ZZZ-55 is a round particle zinc oxide practically free of colloidal "fines". High gloss and good weathering qualities.

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would still be a relatively small cost item. Heat at certain times of the year would increase. Motive power in all cases, except ball and pebble mills, would be proportional to increased production. Shift operations result in the more efficient use of ball and pebble mills. Fixed overhead would be relatively static.

Replacement Cycle Factor

With regard to inventories it was pointed out that it is prohibitive to have separate pieces of manufacturing equipment for each item manufactured, except in very special cases. It is necessary that all items made be in stock at all times for prompt shipment. The quantity of finished product stock on any item put into the warehouse must be sufficient to last through the length of time necessary to replace it by new production. This replacement cycle is roughly the time between the finish of a batch in the plant and the start of a new batch—or the interval of no manufacture. If a piece of manufacturing equipment is tied up in making several different items, so that it operates only one day a month to turn out a certain product, then the amount of inventory that must be carried on this item is twenty-nine days supply.

The amount of material that must be carried in stock is therefore related to production capacity. Whether or not it is advisable to increase production capacity in order to reduce investments in inventory is a matter that has to be worked out in each locality by each manufacturer.

Comparison of Representative Latex Emulsion and Oleoresinous Flat Wall Paints

Baltimore Club

Included in this series of comparative tests by the Baltimore club, in white and in green colors, were two leading commercial brands of latex emulsion paints and two popular brands of oleoresinous flat wall paint. Supplementing these were two latex paints made by raw material suppliers on their own recommended formulae, and an alkyd resin flat wall paint made on the recommended formula of a raw material supplier.

These various finishes were compared in properties and performance on those points which are of practical interest in actual application and use, namely, working properties, hiding power, adhesion, washability, and package stability.

Hiding—Commercial white latex emulsion paints averaged 250 square feet per gallon in hiding power, and had a daylight reflectance of 80 percent. The white latex paints made by raw material suppliers on their formulations averaged 200 square feet per gallon in solid hiding power, with daylight reflectance at 88 percent. The commercial white oleoresinous flat wall paints averaged 325 square feet per gallon at 90 percent reflectance.

In the deep green colors, hiding power ranged at 700 square feet per gallon at 35 percent reflectance for the latex paints, 825 square feet per gallon at 35 percent reflectance for the oleoresinous paints. Other oleoresinous paints with a daylight reflectance of 55 percent averaged 700 square feet per gallon.

It was concluded that even at such low reflectance values as to make them off-white, the latex white paints had considerably less hiding power than the oleoresinous paints, and were considered inadequate for a one-coat job. The green paints, as would be expected, all had adequate hiding power.

Adhesion—Adhesion in this series of tests was interpreted to mean the strength of the adhesive bond between the film and the surface coated. The best adhesion was obtained with the alkyd resin flat wall paint, both initially and on aging. Next best were the oleoresinous flats.

The latex paints showed relatively poor adhesion initially, but as the film aged and cured further, adhesion improved to a point where some of the latex paints eventually developed adhesion comparable to the poorest of the oleoresinous paints. Methods of test, however, were felt not too efficient because adhesion could to some extent be confused with film hardness. It was noted that the latex films showed their poorest adhesion over the semigloss coated surfaces, while the alkyd resin flat showed its best adhesion over the aged flat primed surface.

Shelf Stability—The extent of these tests was relatively limited, being only fifteen weeks. The only failures during this brief period were the raw material supplier recommended formula latex paints, which became impossible to re-disperse, and on which the emulsion appeared to break. The commercial latex paints settled to a point where re-dispersion was difficult. The oleoresinous and alkyd materials appeared to be satisfactory with respect to re-dispersion.

Washability—A two-coat system was applied on panels, which were then aged one month before washing. The panels were stained with oil, iodine, and ink. In abrasion resistance and scrubability, the oleoresinous paints appeared to be equal, in most cases, to the latex paints. In ease of dirt removal, latex paints were superior to flats, behaving more like eggshell or semi-gloss enamels.

Quick Specific Tests for Qualitative Determination of Characteristic Components in Vehicles or Synthetic Resins

CDIC Club

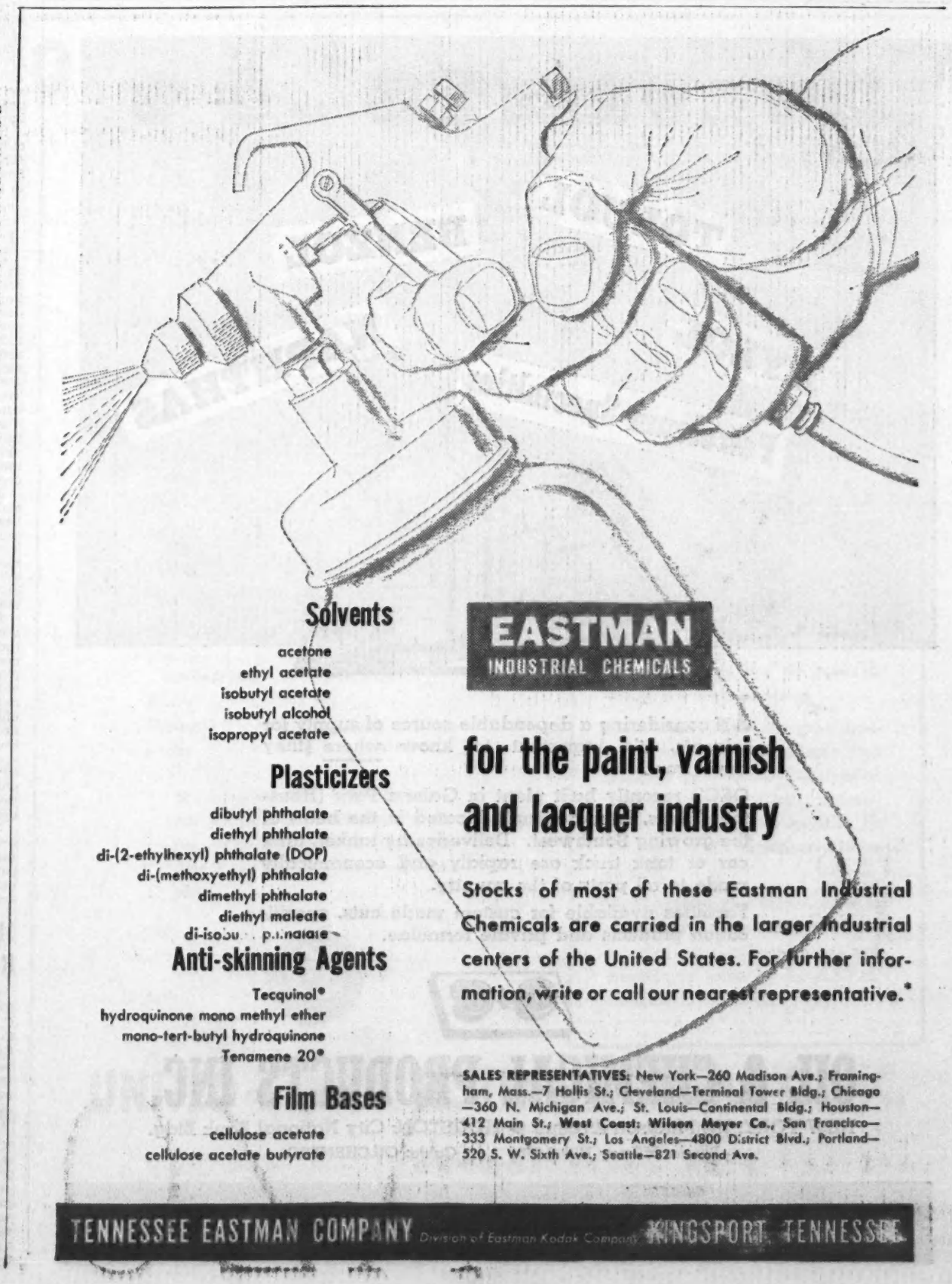
It was recalled by this club paper that chemically trained men, after they get into the paint industry, are likely to become blenders, mixers, and supervisory men, and forget the application of some of their basic chemistry. The paper dealt primarily with easily set-up qualitative tests for the determination of the type of vehicle represented by an unknown sample. Such tests, it was said, are valuable in determining the contents of a drum from which the labeling had become obliterated in storage, or in quickly determining the composition of a competitive product formulation.

A simple soda-lime test for urea-formaldehyde and melamine containing vehicles, or resins, suffices to determine the presence of these types of amines. Grinding the soda-lime with some of the unknown vehicle, and heating in a hard glass test tube causes ammonia vapors to evolve, turning red litmus blue. Further easily observed tests are that these resins are thermo-setting and, in solution, are generally associated with the odor of butanol.

Test for Halogenated Resins

Another simple qualitative test was described for halogenated resins. Beilstein's test, in which a copper wire is heated in a flame until the flame no longer shows a green tinge. The wire is then dipped into the unknown vehicle, and inserted in the flame. The vehicle first burns in the usual manner, and then shows a green flame, due to volitization of the cuprous halide. This qualitative test is applicable to such materials as vinyl chloride resins, chlorinated paraffins, chlorinated rubber, and other chlorinated products.

A simple test used to spot an alkyd resin is to heat a very small quantity of the material, as solvent free as possible, dropped into the bottom of a large Kjeldahl flask. The very small pill of resin is heated directly over a flame with the flask held at an angle. If the resin is an alkyd, needles of phthalic anhydride will con-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dense on the cold surfaces of the flask. However, since para-phenyl phenol resins will also give a sublimation, the presence of an alkyd resin can be confirmed by taking some of the sublimed needles, mixing them with some resorcinol and zinc chloride. Heating this mixture for a moment quite strongly produces a redish brown colored melt which, when treated with dilute sodium hydroxide, yields a greenish yellow fluorescence characteristic of fluorescein.

Nitrocellulose Lacquer Test

If a vehicle is suspected of being a nitrocellulose lacquer, it should be applied to a white procelain panel and allowed to dry. To this is applied a mixture of several drops of one half percent solution of diphenylamine in 90 percent sulphuric acid. Even a small amount of nitrocellulose in the film will produce an intense blue color.

This club paper reported that there were, as yet, no quick quantitative tests that would identify styrenated alkyds, epoxy resins and epon esters. The best current indication seemed to be the determination of saponification numbers, and comparing these with known vehicles. Whereas an ordinary type alkyd resin, 40 percent phthalic anhydride and 38 percent fatty acid, would have a saponification number of around 390 to 400, a typical styrenated alkyd would run about 140 to 146. An epoxy resin shows saponifications numbers in the range of 0 to 12, while epoxy esters range from 50 to 54 on a 25 percent DHC fatty acid ester and 78 to 84 on a 40 percent DHC fatty acid ester.

Comparative Effect of Oil Rancidity and Resin Acidity on Aluminum Vehicles

Pittsburgh Club

For many years producers of ready-mixed aluminum paints have held in a general way that high acidity, moisture, faulty containers, and certain metallic driers were responsible for such troubles as gassing, loss of leafing properties, creeping, gelling and related effects.

Since a previous paper of the Pittsburgh club dealt with the effect of metalic driers on the package stability of aluminum paints with respect to film performance, the present investigation concerned itself with the effect of vehicle acidity on gassing and leafing of aluminum paints.

Eleven aluminum paints were prepared using vehicles of different acid number. Ten of these were made by blending high and low acid number resins with high and low acid number drying oils. The oils were kettle bodied linseed oils, one having an acid number of 1.8 and the other an acid number of 17.05. Resins used were low acid number ester gum, high acid number ester gum, coumarone-indene resin, petroleum hydrocarbon resin, straight rosin, and a 100 percent pure phenolic resin.

The vehicles were blended to an oil length of around forty gallons, and cut back to 50 percent solids, with viscosities ranging from B to D on the Gardner-Holdt scale. The drier used was 0.05 percent cobalt on the oil. The pigment used was aluminum paste TT-A-468a, type II, class B, at the rate of two pounds per gallon of vehicle. Solvent used was 80/20 mineral spirits/high flash naphtha. The non-blended vehicle was a pure phenolic linseed/tung oil varnish meeting specification MIL-V-1174. For each vehicle, two paints were made with standard lining pastes meeting the above specification. Those designated as the "A" series were made with one paste while those designated as the "B" series were made with the other paste.

Evaluation of these paints with respect to gassing and leafing were made, and they are currently exposed on test fences for durability characteristics.

With respect to gassing on storage, it was found that aluminum paints are no worse in pressure build-up than are non-aluminum paints. Aluminum paints containing high acid value linseed oils showed poor leafing properties. Leafing of aluminum paints was shown to be not greatly affected by the acidity of the resin constituent in the vehicle.

Testing Amino Resins in Baking Finishes

Birmingham Club

Hopes entertained for a uniform testing procedure for amine type resins used in baking enamels were largely abandoned because such schemes of testing were too involved and too time consuming for practical everyday application by industry. Accordingly, these overall testing procedures were abandoned in favor of separate tests on the resins and on finishes made therefrom, for the specific properties desirable of investigation.

Methods of test on the resin as received were recommended for such properties as appearance, non-volatile content, viscosity, mineral spirits dilution tolerance, acid number, accelerated storage at elevated temperatures, and storage tests on blends of the amine resins with alkyds. On finished products tests for overall appearance of the film, film hardness, a bending test which is a sort of combination test on adhesion and flexibility, the knife test for adhesion, water resistance, gasoline resistance, acid, alkali, soap, and grease resistance, and finally durability exposure tests.

In general the test methods and procedures recommended by the Birmingham (England) club were essentially no different or inclusive than those practiced in this country over recent years.

Dry Hiding Power of Paints

New York Club

In 1951 the New York club developed a method of measuring dry hiding power of paints which was adopted by the federation. The principle of this method is the development of contrast ratio film thickness curves. The paint films are applied uniformly by mechanical means on suitable hiding power charts. Daylight reflectance is measured over the black and white areas of the chart by photometric means. The film thickness applied to the chart is determined, and curves are plotted giving a straight line relation between contrast ratio and the reciprocal of the film thickness. From these curves, the spreading rate at complete hiding is taken as 98 percent contrast ratio.

It was felt that while the mechanics of making hiding power tests by this method had somewhat simplified the procedure, there was still considerable detail work involved. Accordingly the paint industry felt the need of a still simpler method of dry hiding determination, which would correlate with the longer method now established.

The development of such a rapid method was felt likely to take some years, and the committee investigating this problem concerned itself this year with the application of the established method to low hiding power paints of varying degrees of daylight reflectance. For example, low hiding power greens were used with reflectances as low as 13 percent. Correlation of results by different laboratories was generally good, but two areas of easily made errors were noted, namely non-uniformity of applied film thickness and the non-standardization of reflectometers used.

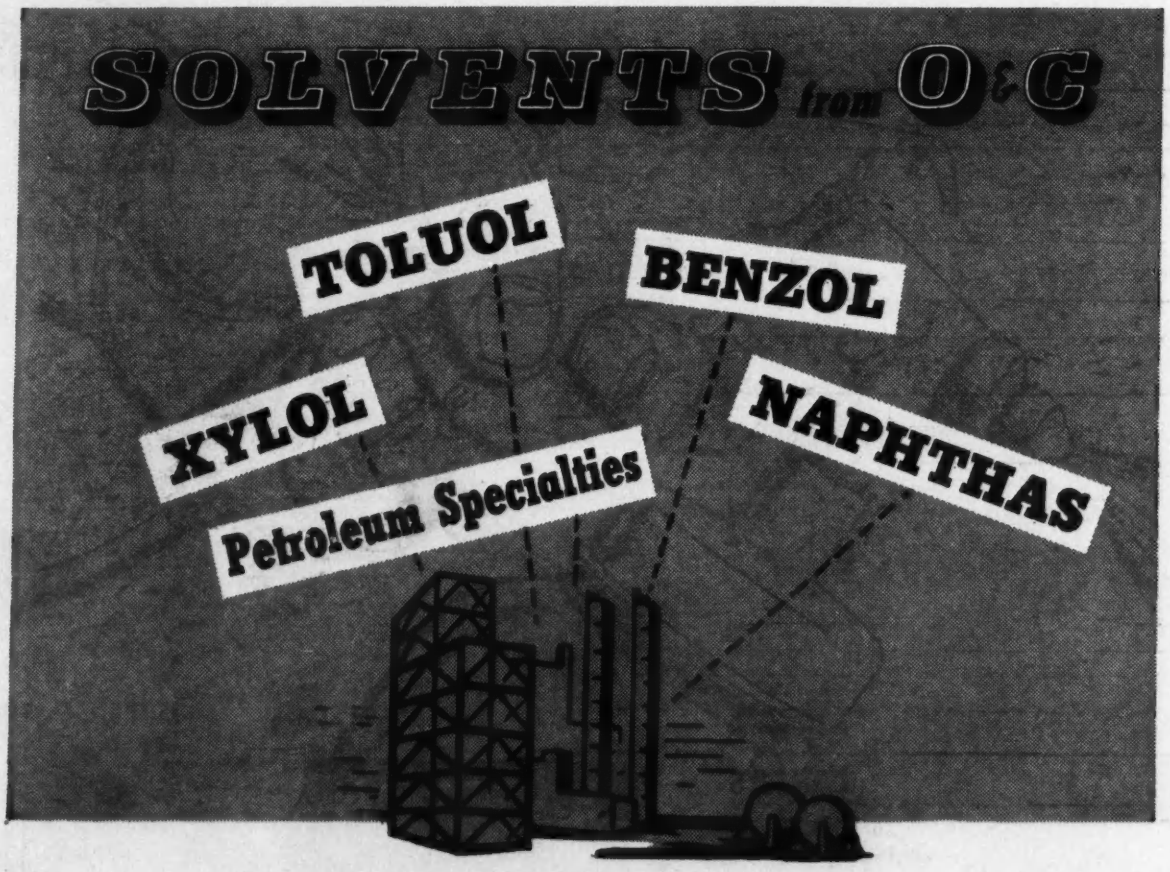
Overall results demonstrated that the federation method of determining dry hiding power can be successfully used on paints of low hiding power, and also on paints of colors having low daylight reflectance.

Manufacturing Committee Reports on New Equipment

The manufacturing committee of the federation, under the chairmanship of M. C. Slack of Dean & Barry Company, Columbus, Ohio, and a member of the CDIC club, submitted a review of new methods and equipment for paint manufacture which have been offered to the paint industry during the past year.

Three-Roll Mill

Charles Ross & Son Company, Brooklyn, N. Y., has offered its number "52T Model," three-roll mill in two sizes, 14"x32" and 9"x24". A special type of hopper riding on the outside taper of the rolls allows production over the full face of the thin wall rolls. These specially bored rolls, with full length water cooling, assures uniform grinding and temperature control. The new "No. 52T" mills also fea-



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ture a specially designed balanced apron, which transfers uniform pressure to the thin take-off knife along the full face of the roll and eliminates scoring of roll ends. The apron can be quickly detached and the clean-up time is further minimized by the use of special bearings in the adjusting hand wheels, permitting the rolls to be quickly disengaged. A frame of solid one-piece cast construction gives maximum rigidity, eliminates vibration and assures more perfect roll alignment. The mill is extremely quiet in operation, having heavy self-aligning bearings throughout, and helical gears which operate in continuous oil bath lubrication.

Self-Cleaning Filter Units

Hercules Filter Corporation, Paterson, N. J., reports new improvements on its self-cleaning pressure leaf filter units. These filters are especially recommended for the efficient filtering of varnishes, resins, gums, oils, lacquers, enamels, and shellac.

Low Temperature Oxidation Process

Catalytic Combustion Corporation, Detroit, Mich., offers a low temperature oxidation process by which fumes from industrial processing are converted to an odor-free, color-free gas plus useful heat energy. The catalytic combustion occurs when burnable fumes are passed through a stationary, porous and essentially permanent catalytic element. The process is adaptable to existing installations within furnaces, ovens, and other equipment where fumes are generated.

Kinetic Dispersion Mill

Kinetic Dispersion Corporation, Buffalo, N. Y., formerly T. J. Laird Equipment Company, recommends its "Ka-DY" mill for use on quality industrial enamels, including white refrigerator baking enamels. Last year the manufacturing committee reported in detail on this new type of dispersion equipment and because of the success with which it has met, it is being mentioned again.

Liquid Precipitator System

In many areas the pollution of air by industry must be eliminated, and for this purpose the Johnson-March Corporation, Philadelphia, recommends its new "Liquid Precipitator System." The air containing dust is first scrubbed with a water-chemical solution, after which it is forced through small openings where the wetted particles are brought together to cause agglomeration. This is finally expanded and contracted in a series of processes which bring about precipitation of dust and fumes out of the air stream.

High Density Grinding Media

McDanel Refractory Porcelain Company, Beaver Falls, Pa., recently announced the development of a new high density grinding media—"Super Porcelain Balls and Bricks." It is claimed that this new media will not only do a better grinding job, but will assure important economies in the way of long wear, faster grinding, and longer periods between relining operations.

Paint Can Seal

Continental Can Company, New York, has developed an "Overseal" which can be used on its "Triple-tite" paint cans, thus eliminating the soldering of the covers when shipments are made through the mail. The use of this "Overseal" has been approved by the Post Office for mail shipments. The seal is applied to the can with a simple closing machine, and a breakaway tear strip permits easy removal.

Dermititis Data

West Disinfecting Company, Long Island City, N. Y., in its thirty-two-page booklet, "The Control of Dermatitis in Industry," emphasizes prevention rather than cure, as a means of solving the dermatitis problem which is always present in the paint industry. Charts indicate the type of cream recommended for various working conditions, as well as their proper use to insure maximum protection.

Automatic Drum Filler

Rucker Company, Oakland, Calif., manufactures an automatic drum filler for oils and other liquids, capable of filling 100 drums per eight-hour shift with a single operator. Empty drums are fed to the unit by gravity roller conveyor and the unit automatically locates the bung and positions the drum for filling. Wide variations in drum heights, diameter, bung location, and weights are automatically compensated for. Once started this drum filler functions without the operator's attention until manually stopped, thus eliminating human error and losses due to overfill.

Equipment Directory Planned

The manufacturing committee of the federation takes this opportunity to appeal to all manufacturers of processing and materials handling equipment, which may have utility in the paint industry, to send to M. C. Slack, 296 Marconi boulevard, Columbus 15, Ohio, full information regarding both old and new items which they manufacture. It is then the intent of this committee to carefully correlate this data in the form of a directory, listing the suppliers of equipment to the paint industry. It is hoped that, in time, this directory will become an important function of this committee to better serve the federation and its members.

Paint Show Exhibits Feature New Materials

Exhibits at the 1952 Paint Industries Show featured new paint raw materials as well as new information on older products.

Hercules Powder Company, Wilmington, Del., in its exhibit, demonstrated new technics which improve properties of chlorinated rubber paints, the latest developments in cellulosic lacquers, and gave new information about protective coating applications for synthetic resins. Among the new resins shown was "Dymerex" resin, a relatively new resinous product which was said to have an exceptionally high softening point, a relatively low acid number, and excellent resistance to oxidation.

Bakelite Company, a division of Union Carbide & Carbon Corporation, New York, exhibited a wide variety of panels covering its line of decorative and protective coatings materials. Demonstrated were such specialties as vinyl resin automotive finishes and marine coatings, "cocoon-type" coatings and polystyrene emulsion wall finishes. New literature was offered covering many other types of coatings based on Bakelite "Vinylite" resins.

Goodyear Tire & Rubber Company's chemical division, Akron, Ohio, featured "Pliolite S-5" synthetic rubber paint resins and "Pliolite Latex 160," a new paint latex.

Falk Shows Alkyds and Oils

Falk Division of Cargill, Inc., Pittsburgh, Pa., in its exhibit, featured products currently available for use in flat wall finishes. They included alkyd resins such as "Falkyd Solution J-9," "J-97," "B-360," and "B-365"; limed oils such as Falk "LVO," "LCL," "LST" and "CCC Pale," and specialty oils such as Falk "HDS," "HDF" and "Falkidine 50 Improved." Particular stress was placed on odorless products. A booklet covering "Oils and Resins for Flat Wall Finishes" was distributed.

Reichhold Chemicals, Inc., New York, announced the start up of production on a new vinyl-type latex emulsion synthetic resin vehicle, "Wallpol," for making odor-

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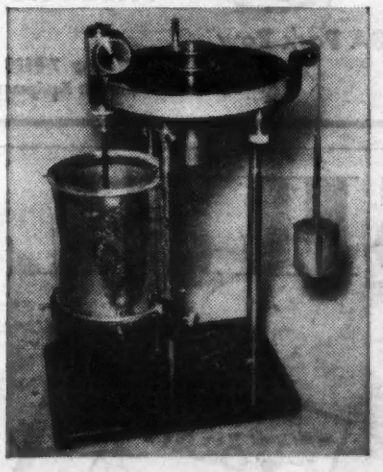

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less, rubberbase, flat wall finishes. In addition, Reichhold also displayed other products in its synthetic resin and chemical pigment color lines.

R-B-H Dispersions, Bound Brook, N. J., exhibited "R-B-H Midas Gold in Metallic Finishes." Paul O. Abbe, Inc., Little Falls, N. J., in its display, showed cutaway views of ball and pebble mills in operation.

Shell Features 'Epon' Properties

Shell Chemical Corporation, New York, featured some of the more important properties of "Epon" resin finishes and illustrated the applications of alcohols and ketones in lacquer and other finishes. Atlas Electric Devices Company, Chicago, displayed the new "Model XW Sunshine Arc Weather-Ometer" for accelerated weathering tests on paint, varnish and related products. The machine, it was said, utilizes many new principles among which is modulated control of specimen temperature.

Neville Company, Pittsburgh, Pa., displayed its complete line of coumarone and petroleum polymer resins as well as shingle stain oils, aromatic and semi-aromatic solvents. Tennessee Eastman Company, Kingsport, Tenn., in its exhibit, described the various activities of the company as they relate to the chemical process industry with special emphasis on its products for manufacturers and users of protective coatings. Included among these products were Eastman's solvents, plasticizers, cellulose acetate and cellulose acetate butyrate and a variety of anti-skinning agents — "Tecquinol," hydroquinone monomethyl ether, mono-tert-butyl hydroquinone and "Tenamene."

U.S.I. Line Exhibited

U. S. Industrial Chemicals Company, a division of National Distillers Products Corporation, New York, keyed its display to the theme, "For the Latest Developments—Keep Your Eye on U.S.I." Featured were the major USI products which are used in the paint industry—industrial alcohol and solvents, natural resins and synthetic resins. Baker Castor Oil Company, New York, gave a pictorial presentation of the production of Baker products starting with the actual castor bean plant through the refining of the oil. Samples of demestic castor bean plants, hulls, beans and finished products were displayed.

Metals Disintegrating Company, Elizabeth, N. J., in its exhibit, stressed the functions of aluminum and gold bronze pigments in protective and decorative coatings. In addition to exhibits obtained from customers showing the use of these pigments in plastics, unsupported films, paper coating and similar applications, there were panels shown through the cooperation of several raw materials suppliers of various vehicles pigmented with selected grades of aluminum and gold bronze pigments.

Dispersed Pulps for Latex Paints

Ansbacher-Siegle Corporation, Staten Island, N. Y., showed dispersed pulps for latex paints. Upressit Products Corporation, New York, displayed the various sizes of Upressit closures and tamper-proof bands, and exhibited export overseals. In addition, Upressit also furnished data on a newly-developed automatic capping machine.

Gray Company, Minneapolis, Minn., showed its line of "Paintmasters," paint dispensing equipment, its "Fastlo" line of paint producing pumps and the "Powerflo" line of pumps for handling materials of high viscosity.

Twenty-two firms participated in a lacquer information center where data on the last methods of application was presented along with durability information, developments in furniture finishing, military lacquers, new emulsion technics and aerosol formulations. Lacquer-finished items were on display. Also showed were the newest items in spraying equipment, including equipment for the aerosol type of lacquer spraying.

C. M. Ambrose Company, Seattle, Wash., in its display, featured the new "Ambrose Self-Cleaning Strainer, Filling and Closing Machine" and other Ambrose equipment. Burt Machine Company, Baltimore, Md., showed its new "AU 611-B" labeling machine, which, it was said, will handle a wide range of round cans from one-quarter pint up to and including the standard gallon-size containers.

Odorless Alkyd Announced

Plaskon Division, Libbey-Owens-Ford Glass Company, Toledo, Ohio, featured its complete line of coating resins, including alkyds, modified alkyds, silicone-alkyds, ureas, melamines, modified phenolics, maleic resins and ester gums. Stress of the display was on a new odorless alkyd which Plaskon announced in connection with the show.

Ferro Chemical Corporation, Bedford, Ohio, displayed all of its products cur-

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rently being manufactured for the protective coatings industry. Information and samples were made available on a new line of stabilizers for application to plastisols, organasols and vinyl paints. Also on products covering the use of fungicides in the control of mildew in paint and a new and different line of odorless driers.

Diamond Alkali Company, Cleveland, Ohio, displayed calcium carbonates, chlorinated paraffin, chromates and silicates used by the paint industry. Also shown were a number of panels demonstrating the properties of Diamond products in actual paint formulations.

J. H. Day Company, Cincinnati, Ohio, exhibited a production-size high speed three roll mill, a laboratory-size three roll mill and a production-size gearless pony mixer. Operating principles on the pony mixer and the laboratory-size three roll mill were demonstrated. Sparkler Manufacturing Company, Mundelein, Ill., displayed its model "18-S-11 Sparkler Horizental Plate Varnish Filter" as well as a demonstrator unit showing the general construction of Sparkler equipment.

G-E Has New Alkyd

General Electric Company, Pittsfield, Mass., in its booth, featured a new "Glyptal" alkyd resin, "G-E 7424," which was claimed to have unusual fast-dry, quick-bake and compatibility features for industrial finishes. In addition, a variety of new applications for "R-108" coating intermediate was also shown along with a new water-repellent, water-soluble silicone material for use in masonry finishes.

Kent Machine Works, Brooklyn, N. Y., displayed its late model machines. Mineral Pigments Corporation, Muirkirk, Md., showed its new line of "Texturized" colors, a series of iron blues and chrome greens, which, it was said, can be fully processed on roller mill and high-R-speed type mills. In addition, a complete line of colors for latex based paints was also on display.

Shell Oil Company, New York, featured "Shell-Sol 72," an odorless minerals spirits, which was claimed to make possible the manufacture of odorless interior finishes of the oil-base type—products that would be on a competitive basis with the rubber-base water paints. A new brochure was distributed, which contained descriptions, typical analyses and suggestions for applications for a majority of the Shell special products, including naphthas, solvents, process materials and waxes.

Agitator Tank Demonstrated

Epworth Manufacturing Company, Detroit, Mich., demonstrated a working model of "Emco Agitator Tank" with variable speed drive and also had a lucite ball mill on display. The company offered its "Paint Mill Handbook" and "Agitator Tank Handbook" to booth visitors.

Witco Chemical Company, New York, presented a complete line of naphthenate, octoate and tall oil type driers; metallic stearates and other special metallic soap type gelling agents; plasticizing esters of the fatty acid, phthalic, and adipic types; carbon blacks, precipitated calcium carbonates and asphaltic bases for pigmentation.

Resinous Products Division, Rohm & Haas Company, Philadelphia, in its display, stressed the theme, "Passkeys to Improved Finishes." Eight new products introduced since the 1951 show formed the basis of the exhibit. Technical features of each of these products were emphasized and complete technical information was available.

Spencer Kellogg & Sons, Inc., Buffalo, N. Y., displayed, with full description and literature, the various special products it makes for the protective coatings industry. Lead Industries Association featured a display of test specimens, colored illustrations and literature on red lead and white lead.

Properties of Finishes Presented

American Cyanamid Company, New York, devoted its exhibit to demonstrations showing the main properties of finishes in which Cyanamid resins are used. Stress was placed on new company products such as the odorless resins for architectural finishes. Cuno Engineering Corporation, Meriden, Conn., presented its full line of filtering and straining devices, including the "Micro-Klean" replaceable cartridge type filter for pre-filling clarification as well as the "Auto-Klean" and "Flo-Klean" all metal strainers for spray and circulating systems.

Charles Ross & Son Company, Brooklyn, N, Y., exhibited its latest type of high speed three roll mill. Shown were a laboratory-size three roll mill with enclosed heavy cast frame and a new type simplified end plate adjustment along with a variable speed laboratory-size change can mixer. Supplementing the exhibit was a visual display of Ross change tank mixers, heavy duty paste mixers, kneading machines and other types of equipment.

Naftone Shows Products

Naftone, Inc., New York, showed Oronite naphthenate driers, Oronite polybutenes, Oronite wetting agents, "Anti-Skinning Agent No. 1" and grinding aids. Binney & Smith Company, New York, had panels showing the colors possible to achieve by employing various combinations of "Mapico" pigments, featuring yellows available in the low oil absorption type and the heat resistant "Tan 20." Also on display were carbon black models of the carbon particles ranging from the blackest to the grayest carbon black, illustrating the difference in particle diameter and attendant characteristics.

Bowser, Inc., Fort Wayne, Ind., showed one of its "Xacto Meters," cut away to expose a portion of the inner working parts. Other Bowser equipment on display included a "Series 3000 Hand Pump" for removing liquids from barrels and tanks. Archer-Daniels-Midland Company, Minneapolis, Minn., placed special stress on some of its new odorless vehicles for interior finishes, and also exhibited the compelte ADM line of paint vehicles, fatty acids and drying oils.

Inert Extenders

Edgar Brothers Company, Metuchen, N. J., demonstrated its "APS" line of inert extenders. Anderson-Prichard Oil Corporation, Oklahoma City, Okla., featured its line of solvents, thinners, diluents, asphalt and petroleum pitch. U. S. Stoneware Company, Akron, Ohio, highlighted its exhibit with a display of "Burundum," a cylindrical grinding medium. U. S. Stoneware also showed its line of "unilized" jar mills, porcelain mall mills and porcelain mill bars.

J. M. Lehmann Company, Lyndhurst, N. J., built its display around its latest development in roll mill technology "Sight-O-Matic Control." The exhibit featured Lehmann's "Model 631-V Vertical Type High Production Three Roll Paint Mill." Hercules Filter Corporation, Paterson, N. J., keyed its exhibit to a medium-sized filter area manually cleaned pressure type filter. Also on display was a small test filter pressure leaf model which made demonstration runs.

Dow Chemical Company Midland, Mich., featured the use of Dow latex in interior paint formulations. Arthur C. Trask Company, Chicago, showed its line of vegetable oils, fatty acids, waxes, tall oils and containers. Kinetic Dispersion Corporation Buffalo, N. Y., exhibited a dispersion unit for one of its sixty horsepower "KA-DY" mills. Troy Engine & Machine Company, Troy, Pa., had on display its "One Point Adjustment" line of roll mills.

Electronic Testing Instruments

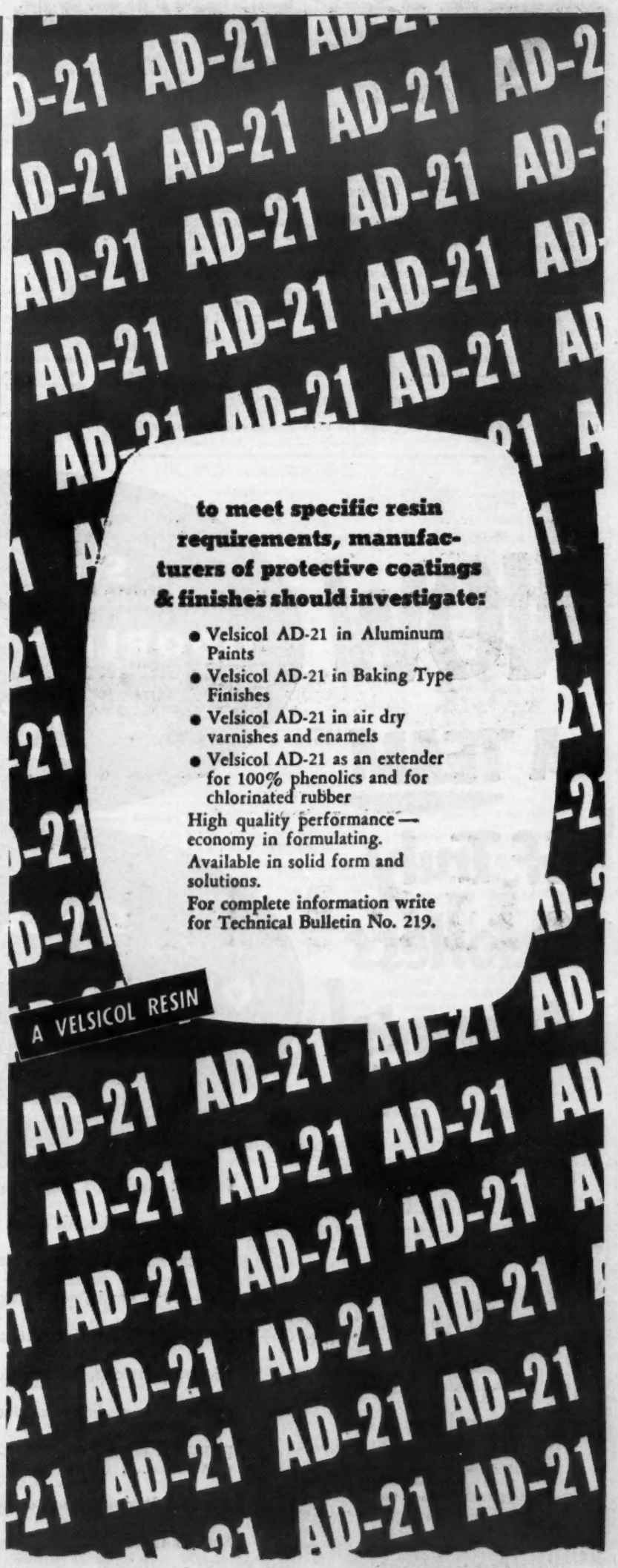
Moisture Register Company Alhambra, Calif., presented electronic testing instruments for use on lumber, plaster and other masonry, and powdered or granular materials. Krumbhaar Chemicals, Inc., South Kearny, N J., showed two recent synthetic resin developments—the 100 percent ketone-base synthetic which was said to have an unusually broad range of compatibility of vinyl, cellulose and rubber derivatives and also was claimed to promote great adhesive strength, high gloss and good flow, and the synthetic copal resin concentrate for oil combinations with rosin or tall oil, which was said to yield inexpensive varnishes which equal or surpass phenolic, maleic or penta-type varnishes in drying, gloss and resistance.

Bennett Industries, Inc., Peotone, Ill., had a special exhibit showing what was claimed to be the only one of the original five-gallon steel paint pails known to be in existence today. Chisgolm-Ryder Company of Pennsylvania Hanover, Pa., exhibited its new "Model V" labeling machine.

Mixers Displayed

Herman Hockmeyer & Co., Bronx, N. Y., showed a heavy duty post agitator featuring variable speed, a full 360-degree mixing swing and a self-contained oil hydraulic system for raising and lowering the machine; a sixty-gallon capacity pony paste mixer featuring the shear and mixing ability of a heavy duty paste with the versatility and cleanliness of a pony mixer, and a sixty-gallon pony paste mixer similar to the one above with the addition of variable speed and a portable turntable.

C. K. Williams & Co., Easton, Pa., had on display a new type of pure red iron oxide pigment known as "Kroma Reds," which were said to be brighter in mass color, cleaner in tint, and more uniform in particle size than other red oxides. Applications were illustrated. Other Williams products, such as pure red, yellow and black iron oxides; chromium oxides; "VVF" umbers, siennas and primer pig-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ments; cuprous oxide; and "Sparmite" barytes were also shown.

Union Bag & Paper Corporation, New York, in its exhibit, featured the "Unitol" brand of refined tall oils. Formulations and data on the application of "Unitol" in various resins and oleoresin varnishes were made available to booth visitors.

Recording Viscometers

Norcross Corporation, Newton, Mass., exhibited its recording viscometers for application on resin reactors, recording-controlling viscometers for automatic control of paint spraying and dipping, impregnating, coating and sizing and indicating viscometers for general use. Models were displayed for pressure or vacuum applications and to meet explosion-proof requirements. There were also illustrations on automatic control systems using recording or indicating equipment.

Bede Industrial Products, Inc., Cleveland, Ohio, featured its new development, "Bede Airless Atomization" an entirely new process which, it was said, permits paint spraying without any air whatsoever. Advantages claimed for the new process include heavier, more durable coatings in less time; an absolute minimum of overspray; elimination of elaborate water-wash spray booths, and no rebound in the face of the spray operator.

Harshaw Chemical Company, Cleveland, Ohio, showed its cadmium pigments, driers and metallic soaps. Nuodex Products Company, Elizabeth, N. J., focussed its exhibit on the theme of the company's twenty years of service to the paint industry. Prominently displayed was a giant replica of the Nuodex trademark, "The three little bottles that built the plant." A series of shadow boxes depicted examples of Nuodex developments.

Morehouse Industries, Los Angeles, Calif., made its display up of the latest paint and chemical laboratory and production equipment, including "Model M-MS," "Model SS-30," "Model B-2000" and a cutaway unit. Available were reports on work being conducted at several universities on paint research.

Carbide & Carbon Chemicals Company, a division of Union Carbide & Carbon Corporation, New York, stressed Carbide's coverage of the fields of synthetic organic solvents and plasticizers for protective coatings. Facts on shipping and delivery were given. Literature available at the Carbide exhibit included a "Solvent Selector," containing practical information for protective coatings formulators.

Ross & Rowe, Inc., New York, presented the advantages to be found in using "Yelkin TTS," the standardized lecithin, in paints and varnishes. It also showed "R & R 449" viscosity modifier, which was claimed to improve the coverage and brushing properties of flat wall finishes, semi-gloss finishes, house paints and primers, and "R & R 551" interface modifier developed for use in resin and latex emulsion paints.

Advance Displays Drier Line

Advance Solvents & Chemical Corporation, New York, exhibited its full line of paint driers—"Soligen" naphthenates, "Hexogen" octoates and "Advasol" linoresinates—and also presented some new developments in the field of drier chemistry. Also featured was the company's line of paint makers' specialties, including "Advamix," "Advance Anti-Flooding Agent," "Advance Anti-Livering Agent," "Advance Anti-Livering Agent Acidic," "Advance Anti-Sagging Agent," "Advance Anti-Skinning Agent," and "Advance Puffing Agents."

Monsanto Chemical Company, St. Louis, Mo., built its exhibit around a new data book on Monsanto resins for surface coatings. The use of Monsanto resins was dramatized in paint production flow charts. There was also a demonstration area for audience trials.

Mattiello Lecture Delivered by MacGregor

John R. MacGregor of the J. R. MacGregor Lead Company, Chicago, and one of the founding fathers of the Federation of Paint and Varnish Production Clubs, delivered the Joseph J. Mattiello memorial lecture. His subject was "Unexplored Fields in Exterior Paints."

Mr. MacGregor reviewed something of the history of the federation, and of ready mixed house paint formulation and marketing. With respect to formulation passing from an art to a science, and house paint marketing growing from questionable practices into an ethical consumer service, he cited the good effect of label laws, but expressed his disapproval of government regimentation and regulation with respect to composition and classification of paints.

Coming more definitely to the matter of unexplored fields in exterior paints, the speaker stated that soft paint films are those in which the adhesive forces of the paint film are greater than the cohesive forces, and hard paint films are those in which the cohesive forces are greater than the adhesive forces. Lead soaps tend to produce soft films, while zinc soaps promote hard films. Present formulating practice is to compromise the two by use of combinations of reactive and non-reactive pigments.

Inert Pigments Discussed

Inert pigments, he said, are preferentially wetted by water and not by oil. Hence they are hard to wet, and in house paint films there are air pockets at the pigment vehicle interface with unreactive pigments, while with reactive pigments these do not exist.

When the paint film dries, he went on, the oil becomes a gel structure in which the pigment particles are suspended. This film which is a colloidal gel structure, shrinks on aging and there is also a subsequent syneresis—or sweating out of the paint film, of the saturated non-oxidizable oil components, which leads to ultimate film embrittlement and failure. With the shrinkage of the gel structure, a vacuum is formed around the inert or inactive pigment particles which had not been thoroughly wetted by the vehicle. When the paint is porous, therefore, air displaces the vehicle at the pigment/vehicle interface.

Overcoming Paint Film Weakness

This weakness of the paint film, he suggested, might partially be overcome by higher pigment volume concentration, which tends to reduce the relative gel shrinkage and syneresis. Paint, he said, breaks at its weakest point, and he cited the adverse effect of water soluble zinc soaps which form in the paint film and are attacked by moisture at the paint/surface interface dissolving the water soluble soaps, loosening the paint film with consequent blistering and peeling.

Mr. MacGregor concluded with the suggestion that paint formulators look more to actual paint formulation in light of the above information, rather than to hydrostatic pressure, for the cause and solution to paint peeling problems. A plasticizer of the vehicle film that will not sweat out on aging, and colloidal gel structure shrinkage, is needed.

Sun Sets Up New England Div. of Gen'l Printing Ink

Ralph C. Persons, executive vice-president of the Sun Chemical Corporation, Long Island City, N. Y., has announced the formation of the New England Division of the General Printing Ink Company, with headquarters at 87 Binney street, Cambridge, Mass. This new unit, with manufacturing facilities at Cambridge and Norwood, will provide a complete service to the buyers of printing inks for all processes and lithographic supplies in the New England states.

It was pointed out that customers in New England who formerly purchased inks and supplies from Sun's various ink divisions can now make one call to the new unit for the products of the following:—American Printing Ink Company, Chemical Color & Supply Company, Eagle Printing Ink Company, Fuchs & Lang Manufacturing Company, E. J. Kelly Company, Geo. H. Morrill Company and Sigmund Ullman Company. Philip J. Kirby, formerly Boston branch manager for Fuchs & Lang, will manage the new unit. Jack P. Mather, formerly New England district manager for Geo. H. Morrill Company, will maintain his office in Norwood and act in an advisory capacity for the next few months. Early next year he will take over his new post at Sun's executive offices in Long Island City.

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Obituaries

Aaron C. Horn

Aaron C. Horn, chairman of the executive committee of the Sun Chemical Corporation, Long Island City, N. Y., died November 26 in New York. He was seventy-six years of age.

A pioneer in the field of structural waterproofing products, Mr. Horn established his own concern at the age of twenty-one. He was made chairman of the executive committee of Sun Chemical in 1945, following Sun's merger with the A. C. Horn Company, of which he was president.

Clarence E. Kinney

Clarence E. Kinney, assistant to the director of operations of the naval stores department of Hercules Powder Company, Wilmington, Del., prior to his retirement in 1945, died November 25 in Kansas City, Mo. He was seventy-six years old.

Mr. Kinney joined Hercules in 1921 when it acquired Yaryan Rosin & Turpentine Company, of which he was manager of technical sales service work. He served as manager of Hercules naval stores technical service until 1939, when he was named assistant to the director of operations, holding that post until his retirement in 1945. Before joining Hercules, in addition to his Yaryan association, he was with Cadillac Rosin & Rupen Turpentine Company, a founder of the Flotation Oil & Chemical Company and works manager of the Bayway Chemical Company.

Joseph F. Rudolph

Joseph F. Rudolph, president of Dodge & Olcott, Inc., New York, died November 23 in White Plains, N. Y. He was fifty-five years old.

Mr. Rudolph began his business career in 1914 at the old Columbus Distilling Company, Brooklyn, N. Y., a subsidiary of U. S. Industrial Chemicals, Inc. He served USI as district sales manager in Detroit, Philadelphia and Chicago before becoming president of Dodge & Olcott in 1948.

C. W. Ashman, veteran Shell Oil Company executive, died recently in San Mateo, Calif. He was fifty years old. Mr. Ashman had been associated with Shell for thirty years.

Frederick S. Battershall, who was assistant to the president of the Socony-Vacuum Oil Company, New York, until his retirement nine years ago, died November 23 in Locust Valley, L. I. He was seventy-six years old. Mr. Battershall had been with the company twenty-six years.

Dr. Edwin G. Conklin, retired biology professor at Princeton University, died November 20 at Princeton, N. J. He was eighty-eight years old. Dr. Conklin had acheved international recognition for his work in embryology.

Thomas J. Gearing, vice-president of the Radium Chemical Company, New York, and president of the Standard Chemical Company, Pittsburgh, Pa., died November 23 in New York. He was seventy-five years old. Mr. Gearing was also an officer of the Radium & Radon Corporation, Chicago, and Luminous Processes, Inc., New York.

Gerard Manasee, executive vice-president of the Mercantile Metal & Ore Corporation, New York, died November 22 in Paris. He was forty-seven years old. During World War II, Mr. Manasee purchased strategic metals for the United States and other allied countries.

Dr. Eugene D. Milener, an official of the American Gas Association, died November 20 in Raleigh, N. C. In 1915, Mr. Milener devised the "degree day" method of calculating gas requirements for heating buildings under various temperature conditions.

Peter Peff, president of the Superior Air Products Company, Newark, N. J., died November 20 in South Orange, N. J. He was fifty-six years old. Mr. Peff was a pioneer manufacturer of equipment to produce oxygen, nitrogen, helium, hydrogen and other gases.

Mrs. Elizabeth G. Read, wife of Charles L. Read, founder of Chas. L. Read & Co., New York, and a member of that firm's board of directors, died November 24 in Chatham, N. J. She was seventy-eight years old.

George A. Scanlan, retired vice-president and general manager of the photo products division of E. I. duPont de Nemours & Co., died November 20 in Maplewood, N. J. He was sixty-six years old. Mr. Scanlan joined DuPont in 1911 and retired in 1946.

Paul R. Welch, chairman of the board of the Welch Grape Juice Company, Westfield, N. Y., died November 22 in Buffalo, N. Y. He was seventy years old. Mr. Welch served the company, which was founded by his late father, Dr. Charles E. Welch, as vice-president from 1903 to 1914. In 1914 he took on the added duties of treasurer, serving in the dual capacity until 1928.

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Chats about Finishes

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by

J. N. BORGLIN

Technical Service Representative
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Protective Coatings Materials

There was relatively little price activity in this market last week. A fractional decline in lead was reflected in the markets for red lead, litharge, orange mineral, and lead monosilicate. The only other price change reported was the advance of red vermilion quicksilver.

Lead pigments were still moving along at the same rate, it was said. There were no changes in the schedules of lead pigments with the metal reduction, other than the oxides and lead monosilicate, which move almost automatically with lead. A producer reported that lithopone had received a boost from the interest in latex paints. The red vermilion advance was brought on by the increase in mercury prices. Activity in titanium pigments has been slightly better in the past month or more. Leaded zinc oxide prices have been unaffected by the fractional fluctuations in lead metal. Zinc oxide has been moving rather well for some producers, however there were some signs of a slight decline in demand while consumers stabilize their inventories at the approach of the year end, a source said.

Petroleum hydrocarbon resins have been moving along nicely. There has been some added interest lately from floor tiles. Demand was expected to hold up well. Phenolics continued to move in good volume. No falling off was noticed for these synthetics, it was said. Supplies were generally adequate, except in some cases of substituted phenolics and paraphenyl phenol derived resins. Supply of polyethylene was short of demand. Polystyrene was said to be moving very well for some producers, one source, however, reported that it would like to see more activity. Vinyl resins have been moving very well. All types of vinyls seemed to be holding up equally well, according to one source.

There has been no particular price activity in the shellac market. Importers said that business continued to move along fairly nicely at moderate levels. "The natural gums were a bit quieter last week," a source said. This was felt to be the result of consumers efforts to hold their inventory position at a status quo while they counted stocks.

Market Trends

Prices Advanced

Red, vermilion, quicksilver, 5c. per lb.

Prices Reduced

Lead, monosilicate, ¼c. per lb.
red, 95%, ¼c. per lb.
97%, ¼c. per lb.
98%, ¼c. per lb.
Litharge, ¼c. per lb.
Orange mineral, ¼c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
88.44	88.44	88.43	101.19

(*For Current Prices see Page 9*)

Prime Pigments

Black, Carbon—Italy's imports of carbon black increased to 6,265 metric tons in the first six months of 1952 from 3,595 tons in the corresponding period of 1951, according to information reaching the Department of Commerce from the Central Institute of Statistics. The United States was the principal supplier.

Green, Chrome—The production figure for September output of the C.P. material reported by the Bureau of Census was 678 short tons, however, the total includes production from a new source previously not reported. In comparison, August output was 660 short tons, and production in September 1951 was 542 tons.

Lead Monosilicate—A reduction of ¼c. per pound brought the price of this pigment down to 15.12c. per pound in carlots, and 16.10c. per pound for less than carlots. The decline was a reflection of the price drop in lead metal early in the week.

Litharge—A reduction of ¼c. in lead metal early last week was reflected in the market for this oxide. Producers were currently quoting 15¾c. per pound in carlots, and 16¾c. per pound for less than carlots.

Lithopone—It was said that this pigment was not moving in the volume it had in former years, but sales were fair. In addition, one source stated that latex paints have given this market a boost. Prices were at their old levels. Supplies were ample enough to take care of the current levels of demand.

Orange, Chrome, Molybdated — Total output of C.P. material was 288 short tons in September, according to the Bureau of Census, as against 267 tons in August, and 230 tons during September 1951.

Orange Mineral—The fractional reduction in lead metal brought this oxide down ¼c. last week. Quotations of orange mineral became 20.1c. per pound in less than carlots, and 19.1c. per pound in carlots.

Orange and Yellow, Chromes—According to information from the Bureau of Census, September output of yellow and orange chromes, C.P., totaled 2,417 short tons, compared with 2,052 tons in August, and 2,251 tons in September of last year.

Red, Lead—Price schedules of this pigment were reduced another ¼c. at the beginning of last week. Current quotations of the 95, 97 and 98 percent material in carlots were 16¾c., 17c. and 17¼c. per pound, respectively. Less than carload quantities were 1c. higher than the carload price.

Red, Vermilion, Quicksilver—The price of this pigment was advanced 5c. per pound last week, making current quotations $3.81 per pound. The advance was a result of a change in mercury prices.

Titanium Pigments—A source reported that there was slightly better activity in this market during the past month, or so. The pickup in demand has been along the lines of the general improvement of many other products. Prices have held to their previously established levels and no changes were anticipated. Supply was good enough to accommodate the current demand.

Zinc Chromate—September production of C.P. yellow zinc was 505 short tons, according to information received from the Bureau of Census. In comparison, August output was 807 tons, and production in September 1951 was 654 tons.

Zinc Oxide — There have been no changes in this market. Prices have held fast to their old levels. The fractional fluctuations in lead have not been reflected in the leaded grades of this oxide. Zinc oxide was still moving well, for some producers, but other sources have reported the beginning of a slight decline while consumers hold to their inventory positions for the year-end.

There was some speculation on what effects of open trading of zinc in the London market will bring. Members of the trade were uncertain what free zinc trading will do to the market here.

Synthetic Resins

Petroleum Hydrocarbon Resins—A producer stated that these resins have been moving along very nicely. The current market was felt to be about normal. It was said that the pickup in demand which has been noticed lately has been better outside of the paint field. Demand from floor tile producers has been very good. There was some interest from printing inks and other uses such as further compounding of these resins.

Prices have held to their previously established levels and no changes in the schedules were anticipated at the present time. Supplies were adequate to meet the current levels of demand.

Phenolics—The market for these synthetics has not shown any tendencies towards falling off, as might ordinarily be expected at this time of the year. Phenolics have been moving very well for the past several months, and were expected to keep up at a good pace. There were no price changes reported during the past week.

Supplies of most phenolics were adequate for the current levels of demand. However, one source reported that some of the substituted phenol derived resins were getting a bit tight. Paraphenylphenolics continued to be very tight as government defense orders held to high levels.

Polyethylene—Demand for this material has outstripped the supply. A source said that although there were no allocations on its material from N.P.A., it was allocating polyethylene on a company basis to assure an equitable distribution of the available supply. There were a good number of defense orders for the material and demand from such uses as packing, pipes, and squeezable bottles was very strong. It was felt that the current levels of demand would be sustained for quite a while longer, consequently this market was expected to be very active well into

For Late Market Developments, See Page 4

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PANAREZ 6-210	11	200-220	170	0-1
PANAREZ 12-210	16	200-220	60	0-1

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the coming year. Prices have held to their previous established levels.

Polystyrenes — Some producers found that this material was moving very well, while others said that they would like to see more activity for polystyrene. One new producer said that its capacity was not tapped yet, but there has been a good increase in sales from month to month. Supplies were adequate to take care of the current levels of demand. Prices have been steady.

Vinyls—The market for these synthetics has seen a fairly good increase in the last quarter. A source reported that there has been no apparent slackening off of demand as might be expected at this time of the year. A particularly encouraging feature to the market, was the fact that no specific type of resin seemed to be carrying the load. Vinyl acetates, vinyl chloride-acetates, and vinyl butyrals were all moving equally well. There have been no recent changes in the price schedules. It was said that these materials were available for regular deliveries, there being no problem with the supply situation.

Natural Resins

The market for gums has slowed up a bit during the past week or so. According to one source, to some extent, this has been because of the recent convention, and then, because consumers were holding their stocks steady while they took inventory. It was said that consumers continued to buy for immediate use only, and were expected to keep buying in the same way until they knew where they stood, and in what direction business was going.

Activity as a whole, has been considerably better than it was during the summer lull. Prices were down to reasonable levels where it was profitable for consumers to use the material, it was said. Schedules for Congo were low now, and were not expected to go any lower. Supplies were adequate for current buying levels.

Shellac—There were no price changes in either orange or bleached grades of shellac last week. Importers said that business was going along at the same pace it has been moving at for the past month or two. Demand was moderate, leaving room for some improvement. But, business was not bad at all, it was said. Consumers were still buying on the basis of their immediate needs.

"However," their business must be pretty good," a source stated, "because they are buying right along."

It was said that the Calcutta market was just a bit weaker last week, but it had no direct reflection in prices here. Current quotations of bonedry remained at 44c. per pound, bags, in 1,500 pound lots. Refined carried the usual 10c. differential.

Miscellaneous Materials

Blood Dried—Supplies of the soluble material were currently abundant. However, demand from adhesives used in the plywood industry has shown a slight pick-up in the past two months. Prices have remained at their previously established levels.

Casein—There has been no drastic change in this market during the past week. Some importers stated that the market was still quiet. However, one source said that some additional interest developed when the Argentine market got weak in previous weeks, and then some improvement was noticed.

There was not too much Argentine spot material available, in view of the shortage of importation quotas among importers. Importers reported that most of the quotas allowed under current licenses have been used up by now. Much of the material which has been coming in to our ports has

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to go into bonded warehouses to await the issuance of new quotas, or some change in the situation. Some felt that there will not be any change in the licensing picture before the present expiration date of June 30. Others were hopeful that the quotas would be increased in the next period. There has been no official word, and no statement was likely while the administration was changing hands. Argentine spot material, when it could be had, was still around 21c. per pound.

Naval Stores

Rosin, Gum

(USDA, per 100 lbs.)

	Fri.	Mon.	Tues.	Wed.	Thur.
G	7.29*	...	...	...	...
I	...	...	7.42*	...	...
K	...	...	...	7.25*	...
N	...	...	7.15‡	...	...
WG	7.40‡	...	7.41*‡	7.45*	...
WW, X	...	...	7.54*‡	7.60*	...
Sales, USDA		28	244*	38	...

Savannah Exchange (per 100 lbs., dms.)

Receipts	113	...	226	1.	...
Shipments	1	...	11	...	...
Stocks	9,416	9,416	9,631	...	...

New York
(per 100 lbs., c.l., Friday)
B—N, $8.30; WG, $8.40; WW, $8.60.

Rosin, Wood

(USDA, per 100 lbs.)

FF	4.31*x	4.31*x	...	6.50*	...

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	.5325†	...	...	.51†	...
Sales	12,000‡	...	...	16,000‡	...

Savannah Exchange (dms.)

Receipts	76	223	77	1.	...
Shipments	2	104	263	...	...
Stocks	2,292	2,411	2,225	...	...

New York, Friday, per gal. 7 lbs., tankcars, 61c., l.c.l., 71c.

Turpentine, Wood, Steam Distilled

(USDA, per 7-lb. unit)

.5038*†	.56*	...	...	...

*Drums. †Tankcars. ‡Bags. §Carlots. ‖Gallons. xNet price. ¹Holiday.

Borden Announces New Urea Formaldehyde Resin

A new modified urea formaldehyde resin, designed to increase wet-strength of paper, has been announced by the chemical division of the Borden Company, New York.

The new product, "Casco-Resin PR-160," is a cationic type resin. Its specially controlled colloidal properties provide quick and close combining of the resin and cellulose fibers and it may be used for any type of pulp, including bleached, rag and groundwood, it was reported. It is specifically recommended by Borden for toweling stock because of its minimum effect on absorbency.

"Casco-Resin PR-160" may also be used with non-ionic or cationic wetting agents where these agents are required to increase the absorbency of the paper. Clear in color, the material has a minimum storage life of four months at 70 degrees. Samples are available upon written request to the division at 350 Madison avenue, New York 17.

MSA Authorizes Austria To Buy Rubber Chemicals

The Mutual Security Agency announced last week that Austria has been given an MSA authorization to purchase $70,000 worth of carbon black and other chemicals for the synthetic rubber industry. The authorization number is 31-390-00-3037 and the contracting period ends March 31, 1953.

The agency also announced that France has been granted funds to purchase 620,000 worth of petroleum products in the United States. The authorization covers $20,000 of microcrystalline wax, $350,000 of paraffin wax, and $250,000 of lubricants and greases. The authorization number is 38-620-00-3004 and the contracting period ends March 31, 1953.

Amer. Lacquer Solvents Unit Opening New Plant

Harry E. Stone, president of the American Lacquer Solvents Company, Phoenixville, Pa., has announced that on January 1 the company's subsidiary, the American Lacquer & Solvents Company of Florida, Tampa, will open a new plant. The facility will be located on two-and-three-quarters acre tract on the main line of the Seaboard Railroad. Some 1,500 square feet of building space will provide an office, a warehouse and storage facilities for 7,200 gallons of solvent.

Pitts. Plate Brush Unit Names Agent

Frederick H. Cone & Co. has been appointed a distributor, to the paint brush manufacturing industry, of Pittsburgh Plate Glass Company's tapered synthetic brush filament, it has been announced by E. D. Peck, vice-president in charge of the company's paint and brush division, Baltimore, Md.

Fatty Acid Production Shows Gain in October

Fatty acid production totaled 33,080,000 pounds in October, an increase of 19 percent over the 27,772,000 pounds reported for September, according to figures released by the fatty acid division of the Association of American Soap and Glycerin Producers.

Shipments were up 28 percent, rising from 29,246,000 pounds in September to 37,491,000 pounds in October. The October, 1952, total is just slightly below the level of October a year ago. Total stocks at the end of October were 37,047,000 pounds, a shrinkage of 3,217,000 pounds from the 40,264,000 pounds on hand at the close of September. October stocks were almost 6,000,000 pounds below those of a year ago.

Cabot Apppoints Daley

Frank E. Daley, formerly ceramic engineer for American Standard Company, has been placed in charge of sales of wollastonite to the ceramics industry, it has been announced by Godfrey L. Cabot, Inc., Boston. Mr. Daley's offices for sales of wollastonite will be located at 10 Greenland avenue, Trenton, N. J.

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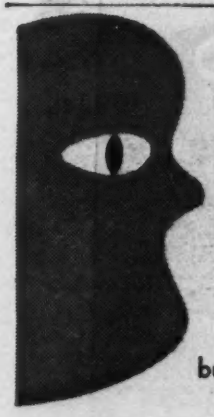
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Oils, Fats and Waxes

Trading in soybean oil was fairly active last week, while other fats and oils were rather quiet. Higher cost of soybeans brought increased demand for the oil and prices were advanced fractionally. Peanut oil advanced 1 cent per pound and light sales took place at the highest price since April, 1951. Production of peanut oil was at a standstill because the government has not yet released new crop peanuts for crushing. Corn and cottonseed oils were unchanged and steady.

Increased offers of coconut oil here and on the Pacific coast weakened the market and price dropped fractionally. This was reflected in shipments of palmkernel oil, which declined slightly. Palm oil was reduced slightly for shipment.

Buying interest in drying oils was inactive. Linseed oil was steadier with higher flaxseed. Refined fish oils were stronger and lifted ½ cent per pound. Tung oil continued unsettled especially for December forward delivery, while limited offers for immediate delivery kept this position steadier than futures. Oiticica oil was stronger and lifted 1 to 1½ cent per pound. Offerings were light for spot and and later delivery.

Quiet export demand for tallow and greases unsettled the market and prices were dropped slightly for all grades. Domestic buyers absorbed moderate quantities at the lower levels.

OPS raised price ceilings of linseed cake and meal and other flaxseed feed products $4 per ton, effective November 26. This will no doubt increase offerings and satisfy active consuming demand. Consuming inquiry for cottonseed meal was light, but producers refused to shade ceilings and tendered meal to the government under the support program.

Vegetable Oils

Castor Dehydrated—Quiet conditions prevailed in this market. Prices were unchanged and steady for all grades.

Coconut—Increased offerings and slow demand weakened the market and prices were off fractionally. Crude was lower at 14c. per pound, tankcars, f.o.b. Pacific coast for December delivery and 13¼c. January. Tankcars were quoted at 15¼c. per pound, New York, December delivery.

Copra—Shipments were steady and nominal at $190 per ton, c.i.f. Pacific coast. Offers were liberal, with little buying interest.

Corn — This market remained steady, with additional trading in crude at 14¼c. per pound, tankcars, f.o.b. mills. November-December shipment and 14¾c., January forward. Refined was without change and held at 17½c. per pound, tankcars, New York basis.

Cottonseed—Trading in bleachable cottonseed oil futures broadened last week the market reflecting the firmness of other commodities due to the rejection of peace proposals for Korea by the Soviet Union. This improved trading and resulted in fractional price advances. Liquidation in December was chiefly absorbed by trade buyers, who also stopped most of the 49 tenders on December contracts. Hedging was more active and took place in July against crude oil purchases. Crushers continued to tender oil to the government under the support program and trade estimates were raised to over 7,000 tankcars for both old and new crop oil during the week. A moderate amount of buying of cottonseed oil was reported against sales of soybean oil undoing spreads.

Refined cottonseed oil consumption in October totaled 1,982 tankcars, against 1,691 in September and 2,028 during October, last year. Consumption for August-October inclusive amounted to 5,100 tankcars, compared with 5,042 during same period last year. Visible supply estimated at 18,213 tankcars, end of October against 13,405 a year ago.

Crude oil was inactive and more or less nominal. Tankcars were unchanged at 13¾c. per pound, f.o.b. mills, Southeast and Valley and 13½c. Texas.

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Nov. 28 follow:—

	Sales	Cents per pound High	Low	Close
December	291	16.20	15.90	16.20@16.25
March	278	16.36	16.13	16.35@16.36
May	178	16.36	16.14	16.36S
July	98	16.37	16.15	16.34S
September	16	15.90	15.08	15.95@15.94

Total sales, 861 contracts.

Memphis.—Crude soybean trading at 12c. per pound, tankcars, f.o.b. mills. Crude cottonseed oil quiet, but steady at 13¾c., same basis. Soybean meal market in the South quiet lately with some signs of increased buying interest. Cottonseed meal steady in this section. Offerings still light. Southeast meal market easy, with stocks available below ceilings.

Linseed—Steadier flaxseed market was reflected in oil, and while quotations were unchanged, sellers showed less inclination to shade asking prices. Some trading was reported at discounts up to ½c. per pound for sizeable quantities early in the week. Consuming demand was slow, while withdrawals of oil against former contracts continued quite active. Raw oil was quoted at 15c. per pound, tankcars, f.o.b. Minneapolis and 16¼c., New York basis.

Final official report on the Canadian 1952 flaxseed crop indicated production at 12,961,000 bushels, against 9,897,000 bushels a year ago, according to the Dominion Bureau of Statistics. Reports from the Argentine stated that growing conditions for the new flaxseed crop continue very favorable. Estimates indicate production at approximately 30,000,000 bushels.

Minneapolis.—A flurry of business developed in linseed oil last Wednesday following OPS announcement that linseed meal ceilings could be boosted $4 a ton by crushers at Minneapolis and other points, effective Nov. 26. Throughout most of the week, only small replacement sales were reported by area crushers, with occasional tankcar lots sold at concessions. Crushers held firm on prices, having discounted the meal boost long ago. Raw oil, tankcar basis, was quoted at 15c. a pound, f.o.b., Minneapolis. Coverage in most instances was for positions up to June, crushers said. Shipping directions were fair to good, and said to be improving.

Shipments of linseed oil, in pounds, were as follows:—

	1952-53	1951-52
Past week	6,120,000	5,400,000
Since Sept. 1	110,340,000	102,000,000

Flaxseed — Seed rallied, advancing sharply, reflecting higher linseed meal ceilings.

Minneapolis. — Flaxseed prices firmed up sharply after it was learned crushers had been permitted to boost their ceiling on linseed meal to $82 a ton, bulk, Minneapolis. Earlier in the week, the market was extremely weak, reflecting persistent liquidation of the December delivery on belief that tenders against this contract would be heavy. No. 1 cash flaxseed sold as low as $5.06½ a bushel, delivered Minneapolis price, before rebounding to $4.11 late in the week. Marketings of seed amounted to 154 cars as against 122 cars in the preceding week and 236 cars a year ago. Shipments Eastward totaled only 9 cars as against 34 cars in the previous week and 23 cars a year ago. Crushing and export interests purchased 26 cars and in excess of 15,000 bushels of seed in the spot cash market. On a to-arrive basis, they booked 28 cars and 35,500 bushels in trucklots.

Receipts and shipments of flaxseed, in bushels, were as follows:—

	Receipts 1952-53	Receipts 1951-52	Shipments 1952-53	Shipments 1951-52
Past week	261,600	545,700	15,300	74,800
Since Sept. 1..	10,086,600	14,455,100	1,333,950	2,001,100

Mustard Seed—Business was reported spotty. Refined oil was available at 16c. per pound, drums, carlots and 16½c. for lesser quantities.

Officica—Reduced offerings for prompt delivery resulted in a firmer tone and quotations were lifted 1c. to 1½c. per pound. Refined oil ranged from 24½c. to 25½c. per pound, tankcars, New York prompt delivery, depending upon seller. Buying interest was reported light. Quotations for drums also covered a wide range from 25¾c. to 26¾c. per pound, as to quantity and seller.

Olive—Consuming inquiry was light and business continued restricted to small lots. Offerings on spot were maintained at

For Late Market Developments, See Page 4

Market Trends

Prices Advanced

Linseed meal, $4 per ton.
Oil, fish, refined, ½c. per lb.
Oiticica, 1c. to 1½c. per lb.
Peanut, crude, 1c. per lb.
ref., 1c. per lb.
Soybean, crude, ¼c. per lb.
ref., ¼c. per lb.
Wax, carnauba, 1c. to 2c. per lb.

Prices Reduced

Greases, ¼c. per lb.
Oil, coconut, crude, ½c. per lb.
Cottonseed foots, 95%, ¼c. per lb.
50%, ½c. per lb.
Palm, ½c. per lb.
Palm kernel, ½c. per lb.
Tung, ½c. per lb.
Oleo stearine, ¼c. per lb.
Tallow, ¼c. per lb.
Wax bees, African, crude, 2c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Nov. 30, 1951
113.13	115.16	116.54	126.64

(*For Current Prices see Page 9*)

$2.35 to $2.45 per gallon, drums, spot, duty paid as to quality and quantity. Demand for olive foots was limited to small lots. Spot stocks were quoted at 15c. to 15½c. per pound, drums, depending upon quantity.

Palm Kernel—This market was quiet, and off fractionally. Prompt shipment was quoted at 15¼c. per pound, tankcars, in bond, Atlantic Coast.

Peanut—Buyers had to raise bids 1c. per pound to acquire oil. Crude was sold at 23c. per pound, tankcars, f.o.b. mills, the highest price paid since April, 1951. Stocks were scarce and the market more or less nominal. Refined was nominally higher at 26½c. per pound, tankcars, New York delivery. The government was not expected to release peanuts for crushing until after January 1.

The supply of peanuts in commercial positions on October 31, totaled 666,000,000 pounds, farmers' stock equivalent, or about 30 percent larger than holdings on this date last year, according to the Bureau of Agricultural Economics. Holdings of farmers' stock peanuts, reported at 584,000,000 pounds are about 43 percent larger than the 410,000,000 pounds on hand October 31, 1951, primarily due to large holdings of government-owned farmers' stock peanuts in the Virginia-Carolina area and favorable harvesting conditions of the 1952 crop, particularly in the southeastern and southwestern areas. Stocks of shelled edible grade peanuts and peanuts cleaned in the shell for roasting are 16 and 52 percent, respectively, less than holdings on October 31, 1951.

Rapeseed—Inquiry was light. Refined oil was unchanged at 16½c. per pound, tankcars, New York, prompt delivery.

Safflower—Prompt delivery was maintained at 15½c. per pound, tankcars, delivered Atlantic coast and 17c., drums, carlots, same basis.

Soybean—Sharp advance of soybeans was reflected in oil and sales were made at a fractional advance. Trading in crude took place at 12¼c. per pound, tankcars, f.o.b. mills, for November and December delivery. January-June was quoted at 12c., same basis. Refined oil was firmer at 15c. per pound, tankcars, New York delivery.

Consumption of crude soybean oil in October totaled 3,532 tankcars, compared with 3,299 in September and 3,086 during October, 1951. Visible supply was estimated at 16,352 tankcars, end of October against 3,594 (carryover) in September and 11,735, October last year.

Sales and prices of prime crude soybean oil futures on the N. Y. Produce Exchange in tankcars (60,000 pounds) for the week ended Nov. 28 follow:—

	Sales	Cents per pound High	Low	Close
December	19	12.25	11.85	12.25@12.33
March	66	12.05	11.55	12.08@12.15
May	55	12.81	11.52	12.00@12.03
July	7	11.91	11.51	11.87@11.92
September	1	11.85	11.85	11.87@11.92

Total sales, 148 contracts.

Tung—This market continued unsettled, especially for forward delivery, while nearby oil was scarce and fairly steady. Buying interest was confined to spot delivery with light sales reported at 36¾c. per pound, tankcars, New York. Early December delivery was reported available at 36c. per pound and straight December at 35¾c. Domestic oil was inactive and entirely nominal at 34½c. to 35c. per pound, tankcars, f.o.b. mills, as to seller.

Los Angeles,—Following were tankcar prices, f.o.b. Los Angeles, unless otherwise designated:—Castor, USP, 27½c. per pound; No. 3, 27¼c. per pound; dehydrated, bodied, 34.1c. per pound, l.c.l., drums included; unbodied, 32.6c. per pound, l.c.l., drums included. Coconut, crude, 14c. per pound. Corn, crude, 14¼c. per pound; refined, 17.90c. per pound. Cottonseed, crude, 13.75c. per pound, Valley; 13½c. per pound, Texas; refined, 17¼c. per pound, California. Linseed, 16.3c. per pound. Peanut, crude, 23c. per pound, f.o.b. mill; refined, 26½c. per pound. Soybean, crude, 12¼c. per pound, midwest; refined, 15.375c. per pound. Tung, 36c.-36½c. per pound, New York.

Fats and Greases

Greases—Slow demand and increased offerings weakened the market and all grades dropped ¼c. per pound. Light trading was reported at the decline. Export inquiry was inactive and served to unsettle the market. Choice white declined to 6¼c. per pound, tankcars, delivered; yellow, 4¼c.; house, 4⅛c. and brown, 3⅝c., same basis.

Lard—This market was a quiet and nominal affair. Cash lard was nominal at 8c. per pound, tierces, Chicago.

Tallow—Quiet demand and lower in outside markets, created an easier tone and quotations declined ¼c. per pound. Moderate trading was reported at the lower levels. Export inquiry was quiet and was a contributing factor to the weakness of the market. Fancy was lower at 5⅝c. per pound, tankcars, delivered; extra, 5¼c.; special, 5c., and No. 1, 4⅝c., same basis.

Animal Oils

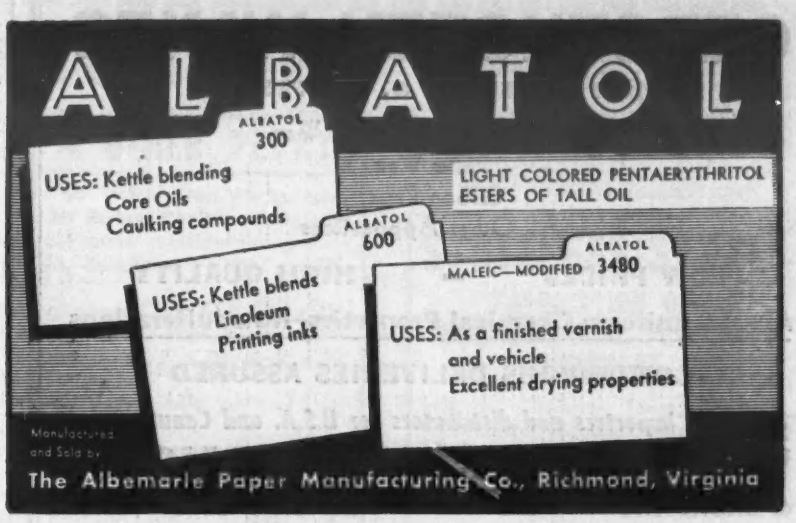
Buying interest was restricted to immediate requirements. Prices were without change and generally steady for all grades. Grease oils quotations covered a wide range, depending upon seller and quantity. Neatsfoot oil was quiet, but well held. Oleo oil and stearine were inactive and more or less nominal.

Fish Oils

Cod—Trading continued inactive. Shipments were maintained at 9c. per pound, drums, exdock, New York for sizable quantities. On spot, small lots ranged from 10c. to 10½c. per pound, as to quantity.

Refined—Refined grades were advanced ½c. per pound. Trading was fair, chiefly for actual needs. Light pressed was held at 11c. per pound, and alkali refined, 12c. per pound, tankcars, New York delivery. Crude menhaden was maintained at 7½c. per pound, tankcars Baltimore, and 6½c., Gulf ports.

During September, 1952, the production of fish oils, exclusive of liver oils, in the United States and Alaska amounted to 2,387,172 gallons compared with 2,542,234



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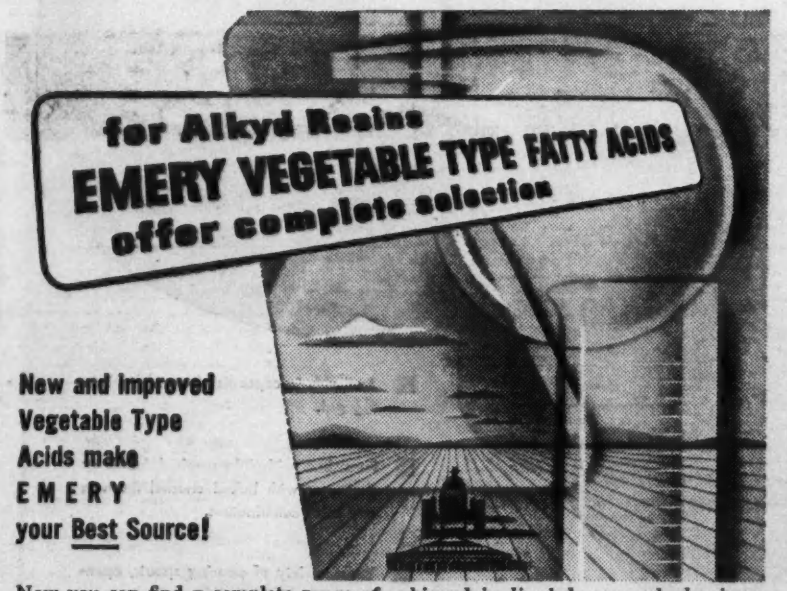

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ADM Operations Aid

James T. Akehurst has been elected assistant vice-president of operations for Archer-Daniels-Midland Company, Minneapolis, Minn. Mr. Akehurst will assume the responsibilities of E. W. Schmidt, vice-president and general superintendent, who is taking an extended leave of absence because of illness. Mr. Akehurst, with ADM since 1931, was named general superintendent of the company's oil refining operations earlier this year (OPD, 5/5/52). Prior to that, he was superintendent of six refineries producing oils and fats for the firm's chemical products and foundry products divisions.

gallons for the same month in 1951. This represents a decrease of 6 percent in quantity compared with September of last year. Tuna and mackerel oils recorded the only increase in production with a gain of 163,173 gallons compared with September, 1951. Oils which recorded a decrease during the month compared with the same month last year were groundfish, Maine and Alaska herring, menhaden, pilchard (sardine), and others oils.

Los Angeles.—Trading was light, with some movement of mixed tuna-mackerel oil at 6c. per pound, f.o.b. San Pedro. Higher acid oil quoted 5½c. per pound. One car of mackerel oil moved at 7¼c. per pound, f.o.b. San Pedro. Mixed anchovy oil quoted 5c. per pound, f.o.b. Monterey, with little interest shown on the part of buyers.

Fatty Acids

Activity this market was confined to withdrawals of fatty acids against former orders. New business was light, chiefly for fill-in requirements. Market was steady and quotations of both animal and vegetable acids were maintained at current prices.

Cake and Meal

Cottonseed Meal—Demand for meal was slow. Prices are still high, compared with other meals, but the mills are still in a position to ship their production to the government at ceiling prices. Resellers who need to give shipping instructions are cutting the market $2 to $4 per ton.

Linseed Meal—OPS increased price ceilings of flaxseed feed products $4 per ton at production points, effective November 26.

Minneapolis.—The long-awaited boost in linseed meal ceiling prices was announced, effective Nov. 26. The $4-a-ton boost raised the ceiling to $82 a ton, bulk, in carlots, f.o.b., Minneapolis. Similar boosts became effective at other crushing points, on top of the $2 hike allowed other centers the preceding week. The price of sized cake, pellets or cubes, 32 percent protein, was boosted to $84.25 a ton, Minneapolis; linseed feed, 30 percent protein, to $77, and flaxseed screenings oil feed, 22 percent protein, to $64 a ton, bulk, Minneapolis. The price boost did not change the supply picture, however, and only limited linseed meal was being offered for up to June positions. Shipments continued excellent.

Shipments of linseed meal, in pounds, were as follows:—

	1952-53	1951-52
Past week	12,420,000	13,320,000
Since Sept. 1	171,140,000	189,100,000

Peanut Feed—The very few cars of peanut feed coming on the market were sold to manufacturers locally at high prices, figuring $90 to $92 per ton f.o.b. shipping points, spot shipment. The supply is very small, with hardly enough trading to establish a market.

Soybean Meal—Production of soybean meal continued in excess of the spot demand which has caused prices to be unsteady. Consumption of meal continued quite heavy, but there is a limit to the amount of meal that can be used. Some processors have curtailed their production. Meal 44 percent was quoted at $74 per ton, bulk immediate, $77 December, and $78 January-March basis Decatur and $75 in the Mississippi Valley area for immediate, $78 for December-January-February. General feed demand is still fairly good but not sufficient to create bullish sentiment on protein meals for nearby shipment.

Waxes

Beeswax—Increased offerings of crude and quiet unsettled the market. African was off 2c. per pound and offered at 45c. to 46c. per pound, on spot. Central American also was unsettled and nominal at 54c. to 55c. per pound. Trading in refined was light. Prices were well held at former levels.

Carnauba — Reports from Brazil that the government has stopped shipments of carnauba which were sold illegally, caused sellers to reduce offerings on spot and afloat and raised quotations 1c. and 2c. per pound. Consumer demand, however, continued slow and was confined to small lots for actual needs. No. 3 crude was quoted nominally at 94c. to 96c. per pound, and refined, 98c. to $1 per pound; No. 1, yellow, $1.25 to $1.27 and No. 2, $1.23 to $1.25 per pound, on spot, according to quantity.

Ouricury—Refined was quotably unchanged and nominal at 71c. to 73c. per pound, spot delivery, as to quantity. Demand continued slow.

Soap Makers Cleared Of Antitrust Charges

Following an eighteen-month investigation into alleged antitrust law violations, a Newark, N. J., federal grand jury voted November 25 not to return any indictments against five major soap manufacturers and a trade organization. The companies involved were the Colgate-Palmolive-Peet Company, Procter & Gamble Company, Armour & Co., Lever Brothers Company and the A. C. Nielson Company. The industry association involved was the Association of American Soap and Glycerine Producers.

H. Walker Smith, a special assistant assigned to the case by the antitrust division of the Department of Justice, would not comment on the probe, which opened on May 29, 1951. There was no indication that the department would attempt to submit the case to another grand jury.

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4—Ruggles-Coles Direct Heat Rotary Dryers—Class XF4—54" x 25', one Class XF 5' x 40'. Also L-B 2'7" x 10' Roto Louvre; three 3' x 50'; 5' x 30'; 5' x 50'; 6' x 40'; 6' x 60'; 7' x 70'; 4—6' x 50' Louisville Rotary Steam Tube Dryers.
PULVERIZERS: 1—#5057 Raymond high side, 5 rolls, with oil journals and motor.
2—#5047 Raymond high side, 4 rolls, each complete and including 2-50 HP motors.
FILTERS: 2—#12 Sweetland Filters for 36 leaves on 4" c/c.
MISCELLANEOUS: 8—Pebble Mills, porcelain-lined, 5' dia. x 4'; 2—6' x 8', 800 gals. each.
6—Devine #28 Vac. Shelf Dryers, each 20 shelves 59" x 78", complete.
10—Shriver 42" x 42", Cast Iron Filter Presses, P & F, 18, 27, 36, 54 chambers, 1" cake.
16—Sperry—18" x 18", Cast Iron, P & F, Filter Presses, closed del., 11 chambers.
1—Stainless Steel Tank, 13,500 gal., closed, agitated, S/S coils, 7½ HP geared motor.
2—700 gal. jacketed steel closed Kettles, with Turbo Mixers.
1—Quadruple Effect Evaporator, calandria type, brass tubes, 14,000 sq. ft. H.S.; excellent condition; still erected; complete with piping, etc.

STAINLESS STEEL
FABRICATION OF NEW CHEMICAL PROCESS EQUIPMENT

including Stainless Tanks, Kettles, Condensers, Reactors, Autoclaves, Distillation Columns, Heat Exchangers, Stills, Filter Presses, etc.
ASME Code Construction

NEWLY FABRICATED
Immediate Shipment

125 gal. closed Kettle, type 316 S/S, 150 p.s.i. jacket, 300 p.s.i. internal, agitated, 2 HP XPL. motor, ASME coded.
300, 500, 1,000 gal. S/S Tanks.
50 gal., 250 gal. S/S Jack. Kettles.
100-300 sq. ft. S/S Heat Exchangers.
24" & 30" bubble cap stainless steel Fractioning Columns.

Estimates gladly furnished

DO YOU HAVE IDLE MACHINES or PLANTS FOR SALE? SEND US YOUR LIST.

CONSOLIDATED PRODUCTS CO., INC.

13-18 PARK ROW, NEW YORK 38, N.Y.
BArclay 7-0600 CABLE ADDRESS EQUIPMENT, N.Y.

OLDEST AND LARGEST DEALER IN REBUILT PROCESSING EQUIPMENT

EQUIPMENT
for CHEMICAL AND ALLIED INDUSTRIES

2—Sperry Stainless Steel 12" x 12" Plate & Frame Filter Presses, Closed Delivery, 12 Chambers.

1—Shriver Stainless Steel 24" x 24" Plate & Frame Filter Press, Closed Delivery, 10 Chambers.

3—Shriver Aluminum 24" x 24" Plate & Frame Filter Presses, Closed Delivery, 35 Chambers.

2—Shriver Cast Iron 24" x 24" Plate & Frame Filter Presses, Closed Delivery, 23 Chambers.

1—Sparkler Steel Filter, Model #33-D-7.

1—Sparkler Monel Filter, Model #33-S-28.

2—Oliver 5'3" x 3' Enclosed Precoat Filters.

2—Oliver Rotary Steel Filters, 5'3" x 6'.

1—Buflovak Stainless Steel Double Drum Dryer, 6" x 8".

2—Buflovak Stainless Steel Double Drum Dryer, 6" x 8".

2—Stokes & Devine Vacuum Shelf Dryer, 13 Shelves.

1—Buflovak Monel Double Effect Evaporator, Type VRC, 250 Sq. Ft. Each Effect.

2—Downington Stainless Steel Heat Exchangers, 500 Sq. Ft.

1—Struthers-Wells Hastelloy B Heat Exchanger, 450 Sq. Ft.

1—Pfaudler Glass Lined Jacketed Kettle with Anchor Type Agitator & Drive, 150 gals. cap.

1—Pfaudler Glass Lined Jacketed Kettle, 500 gals. cap.

1—Glascote Glass Lined Jacketed Vacuum Reactor, 1600 gals. cap.

1—Combustion Engineering Stainless Steel Autoclave, 488 gals.

1—Patterson Stainless Steel Autoclave, 225 gals. cap.

1—Sharples Stainless Steel Super D Canter, Model #PN-14.

1—Thropp 2-Roll Rubber Mill, 10" x 24".

1—Abbe Master Rotary Cutter #3.

3—Mikro #3-TH, #2-TH & #1-SH Pulverizers with Motor.

R. GELB & SONS, INC.
UNION, N. J. Est. 1886 Unionville 2-4900

Cast Your Eyes Over These BRILL Buys!

OUR QUARTER CENTURY OF DISTINGUISHED SERVICE TO INDUSTRY ADDS UP TO GUARANTEED SATISFACTION!

PARTIAL LIST OF VALUES—SEND FOR NEWS FLASH!

2—1,400 gal., 1,000 gal., closed, stainless steel jacketed kettles.
1—1,600 gal. closed, stainless steel Storage Tank.
2—Oliver 8'x10' Monel Rotary Vacuum Filters.
2—Oliver 5'3"x3' Enclosed Precoat Filters.
1—Bird 36"x50" solid bowl Continuous Centrifuge, SS, 40 HP.
1—Fletcher 48" Suspended Centrifugal, aluminum perforated basket, motor driven.
1—AT&M 42" Suspended Centrifugal 347 stainless, bottom discharge, motor driven.
2—Tolhurst 32", 26" Suspended Centrifugals, Monel perforated baskets, motor driven.
3—Buflovak 6' diameter Atmospheric and Vacuum Crystallizers.
2—Devine #27 Double Door Vacuum Shelf Dryers, 17-59"x78" shelves.
4—Devine single door Vacuum Shelf Dryers 20 and 6-40"x43" shelves.
2—Stokes 30"x8', 3'x15' Rotary Vacuum Dryers.
1—Link Belt Monel 2'7"x8' Roto-Louvre Dryer.
1—Vulcan 4½'x50' Rotary Dryer, ⅜" shell.
1—Albright Nell 60"x80" Single Drum Dryer or Flaker.
1—Hardinge 4½'x16" Conical Steel Lined Ball Mill.
4—Oliver 3'x1', 4'x5', 8'x12', 11'6"x18' Rotary Vacuum Filters.
3—#7 Sweetland Filters with 27 leaves on 3" centers.
3—Shriver 36"x36" C.I. Filter Presses, P&F, 30 chambers, closed delivery.
4—Sperry 24"x24" C.I. Filter Presses, P&F, 16 chambers, closed delivery.
1—Shriver 24"x24" hard rubber Filter Press, P&F, 12 chambers, closed delivery, washing.
1—Sperry 24"x24" Aluminum Filter Press, P&F, 22 chambers, open delivery.
4—Groen 150, 125 gal. SS, jacketed, agitated Kettles.
1—Pfaudler 10 gal. glass lined, jacketed, agitated Reactor.
1—Blickman 25 gal. SS jacketed Still with refulux condenser.

● CHECK THESE SPECIALS!

1—5'x15' Rotary Kiln, oil fired.
1—Jeffrey 5'x9' Monel Indirect Vibrating Hot Air Dryer.
1—Pfaudler 350 gal. glass-lined, jacketed, agitated Reactor.
2—Pfaudler 100 gal. glass-lined Stills with glass-lined Condensers and Receivers.
2—Sharples P-16 Monel pressuretite Centrifuges.
1—Tubular Heat Exchanger, SS, 225 sq. ft.
1—Bird 18"x28" steel, solid bowl, Continuous Filter.
2—Baker Perkins 100, 50 gal. double arm, jacketed Mixers, Sigma Blades.
1—American Gas Furnace 7" dia. x 30" long, nichrome tube.
1—Steel Tank 10'x30', welded ASME, 50# pressure.
1—Day 5"x12" three-roll water cooled Roller Mill, motor driven.
2—Raymond 4 roll, high side Mills.
1—#12 Sweetland Filter with 36 steel leaves, 4" centers.
1—Robinson 40"x104" Triple Deck Sifter.
1—Vertical Steel Storage Tank 30'x26', 135,000 gals.

BE BRILL EQUIPMENT COMPANY

"BRILL FILLS THE BILL! Write, wire or phone us for complete information"

MIXERS—Stokes 13 gal. New Portable Agitators.

PEBBLE MILLS—Lab. 30x33 to 6'x8', Ball, 24x18, w/motors.

HAMMER MILLS—Wms. LG. 1—Reg. #1—BX825—GA30—w/motors.

SCREENS — Tyler 3x5 — single, double, triple deck, Selectro 18x48 double.

FILTER PRESSES—24" w/28 p&f, clsd. del.—30" w/26 & 29 p&f open wash.

JAW CRUSHERS — 8x14 — 11x20 — 14x28—24x36.

VAC. PUMP—Devine 10"x10".

KETTLES — Aluminum — Jacketed, 275 gal.

ROTARY KILNS—3'x17', 4'x30', 5'x40', 6'x80'.

EXHAUSTERS to 60000 cfm.

TANKS—Steel to 15,000 gal.

LAWLER COMPANY

LAWLER PLACE, METUCHEN, N. J.
METUCHEN 6-0245

SPECIAL

Dopp 350 gal. Agitated, Jacketed Vac. Kettle, Condenser & Pump.

DRYERS AND KILNS

Devine #12 Vac. Shelf Dryer, 40"x42".
2—Allbr. Nell 4'x9 Atmos. Drum Dryers.
1—Proctor & Schwartz 6 fan automatic 3 apron Conveyor Dryer.
1—Buffalo Vac. Drum Dryer, 24"x20".
Gehnrich Gas Fired Dryer, 12 trays, 21"x32"
6—Steam, gas & elect. Dryers.
6—Rotary Dryers. Direct & Indirect. Also Jacketed & Steam Tube.
New Rotary Dryers, Kilns and Coolers

CENTRIFUGALS AND CENTRIFUGES

6—Tolhurst 40" Suspended Type Centrifugals. Bottom Discharge.
8—Centrifugals, 20", 26" 30" 40" & 48" Steel, Copper Stainless & Rubber
11—Sharples No. 5A Stainless Centrifuges. 2 HP. Also No. 6.
2—De Laval Multi Clarifiers. 300 & 301.

FILTERS

1—Vallez Filter #48 with 41 Stainless covered 44½" dia. leaves.
10—Sperry and Shriver, 12", 18" 24", 30", & 36" iron Filter Presses.
Sweetland & Oliver Vac. Filters.

KETTLES AND TANKS

2—Pfaudler 500 gal. vert. Glass Lined Tanks.
Dopp 350 gal. agit. Jack. C. I. Vac. Kettle.
Devine 36" dia. Impregnating Unit; Jacketed. Liquor & Impregnating Kettle.
100 gal. Jack. Impregnating Kettle.
500 & 1,000 gal. closed Jack. Steel Kettles.
2300 gal. vert. agit. Jack. Steel Kettle.
8—Jack Kettles, 50 to 2500 gals.
1—250 gal. Lead lined Kettle.
Stainless, alum., Copper, Glass Lined, Lead Lined Kettles and Tanks.
New Stainless Tanks, 50 to 500 gals
4—Steel welded horiz. Tanks, 10,000 & 5,000 gals.
Copper Varnish Kettles, 150 to 300 gals.

PULVERIZERS AND MILLS

2—Abbe Pebble Mills, 24"x33". Also Jar Mills.
#1 Raymond Autom. Pulverizer, 20 HP.
1—00 Raymond Mill 30 H.P., complete.
2—00000 Raymond Mills
Hammer Mills & Pulverizers, to 50 HP
1—Sturtevant 42" Rock Emery Mill.
1—Robinson 22" B.B. Attrition Mill.
1—Lehman 4 roll WC., 12"x36" Steel Mill.
4—Lehman & Kent 3 Roll Steel Mills. 8"x22" 9"x32", 12"x30", 16"x40".
1—Monarch 9"x24" Steel Roller Mill, 3 pr. high. Also 7½x20, 4 Roll.
1—9"x24" 3 Pr. High Steel Roller Mill.
Houchin 18"x36" 4 Roll Granite Stone Mills.
2—U. S. & Premier 1½ H.P. Colloid Mills.

MIXERS, SIFTERS & SCREENS

Baker Perkins double arm Mixers, 100, 50, 9 gals. & 4½ gals. Also single arm Mixers.
Lancaster size 3 Pan Mixer 7½ H.P.
Century 40 & 80 qt. vert. 4 speed Mixer.
Tyler 3'x5' Vibratory 2 deck Screen.
Patterson 3½' dia. Stainless Conical Blender.
1—Master Drum type 1000# Blender.
10—Dry Powder Mixers, 50 to 2,000 lbs.
Day 40 & 15 gal. Pony Mixers.
15—Portable Elec. Mixers, ¼ to 2 HP.
6—Lead and Paste Mixers, to 150 gals.

MISC. AND SPECIALS

2—Buffalo 6' dia. Vac. crystallizers.
4—Stokes & Colton Rotary and Single Punch Tablet Machines, ½ to 3".
4—French Oil 400 Ton Linseed & Cottonseed Hydr. Presses.
4—French Oil Motor Driven Expellers.
1—Stokes 2E Paste Filler.
3—Stokes and Day Powder Fillers.
Filling Machines, liquid paste, powder.
Elgin Capper, ½ H.P. Motor driven.
2—Howe Mogul barrel and bag packers.
2—Revolving Pans, 30" & 36"
1—Gould 75 HP 2 stage centrif. Pump.
4—Stokes Vertical High Vac. Pumps.
2—Worth 12"x12"x12" Vac. Pumps.
6—Devine & Buffalo Vac. Pumps.
Soap Machinery for Toilet, Laundry, etc.
Centrif., Rotary, Duplex & Triplex Pumps, Boilers—Gas, Oil & Coal Water Stills.

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STEIN EQUIP'T CO.

107 EIGHTH ST., BROOKLYN 15, N. Y.
STERLING 8-1944

FOR SALE

2—Motor Driven #2SI Mikro Pulverizers. Practically Brand New.
1—Baker-Perkins 100 Gal. S.S. Mixer, double-arm, sigma blades, motor driven.
1—Day #2 75 Gal. Brighton Mixer.
5—Pebble Mills, 40 to 500 Gal.
10—Pony Mixers, 8, 15, and 40 Gal.
1—Eppenbach Stainless Steel Home Mixer with a 7½ hp Explosion-Proof Motor.
HIGH SPEED Roller Mills, 9"x24" to 16"x40".
3—8" Premier Colloid Mills, watercooled.

Specializing in Rebuilt Machinery

IRVING BARCAN COMPANY

249 Orient Ave., Jersey City 5, N. J.
DElaware 2-4695-6

"Geared to Serve You"

8—500 gal. Stainless Steel Tanks with covers.
2—275 gal. Stainless Steel closed top tanks.
4—200 gal. Stainless Steel open top tanks.
6—100 gal. Stainless Steel open top tanks.
1—125 gal. Stainless Steel Jktd Kettle.
1—100 gal. Stainless Steel Jktd. Kettle.
1—75 gal. Stainless Steel Jkt. Kettle.
1—150 gal. Stainless Steel Jkt & Agt. Kettle.

What have you for sale..
List your surplus with us.

JASPER MACHINERY CO., INC.

"Geared to Serve You"
1123 BROADWAY NEW YORK 10, N. Y.
CHelsea 3-9010-9011

JUST PURCHASED

12—Vertical Agitators — 40 HP Horizontal gearmotor 3/60/220-440/1750-350 RPM with Turbo #58 (5:1 ratio) vertical drive, steel shaft and turbine impeller. Excellent condition.
1—400 cu. ft. Stainless Steel Bin or Hopper, Type 316, ¼" thick, welded and reinforced, 6'9" x 6'9" x 3'8" high on straight side—10' O.A. Ht.

NOW LIQUIDATING

Manufacturing and packaging equipment of Chemical Manufacturing and Distributing Co., Easton, Pa. Equipment priced to sell:
1—500 gal. Pfaudler glass-lined kettle.
2—10,000 gal. Rubber-Lined Vertical Closed Steel Tanks with 25 HP Turbo Agitator.
5—Powder Mixers — 2000#, 1000#, 800#, 200#.
1—Viking Rotary Pump, 3", 20 HP motor.
1—Mikro Pulverizer #1-SI.
1—Lightnin Agitator LDG-300—3 HP—431 RPM.
3—12,000 gal. Horiz. Steel Storage Tanks.
2—7,500 gal. Vertical Steel Storage Tanks.
1—1,000 gal. Stainless Clad Rectang. Tank.
Large Lot Pumps, Tanks, Kettles, etc.

ANOTHER LIQUIDATION

We have just purchased for liquidation, the equipment of the Patrick Henry Brewery, Marion, Indiana. We can offer excellent bargains in grain handling equipment, filters, ammonia compressors, cookers, pumps, conveyors, office and machine shop equipment, etc. Also 600,000 gallons total capacity welded steel tanks from 3500 gal. to 12,500 gal. sizes.
This equipment is priced to sell and we recommend your early investigation.

FOR SALE FROM STOCK

8—15,000 gal. Vertical Welded Steel Closed Fermenting Tanks, 80 lb. W.P. turbine agitator with 40 HP motor, 978 lin. ft. 3" pipe coil. Excellent condition.
12—3,000 gal. Horizontal Stainless Steel Tanks, insulated and agitated.
40—Stainless Steel Tanks—30, 60, 100, 150, 200, 300, 500, 1,000, 2,350, 3,000, 4,200, 5,700, & 16,200 gal.
35—Aluminum Tanks, closed, 4, 275, 330, 480, 500, 1,350, 1,450 and 9,000 gal.
30—Stainless Steel and Stainless Clad Steam Jacketed Kettles—10, 40, 60, 80, 100, 150, 200, 500 gal.
1—4-gal. Nickel autoclave, 1,500# T.P., agitated.
1—2½ gal. Stainless Steel Reactor Tank with agitator.
2—Aluminum Reaction Kettles, Jktd. and Agit.—40 & 100 gal.
1—300 gal. Stainless Steel Vacuum Still, T316, direct fired.
1—Stainless Steel T316 Packed Column, 2' dia. x 6'8" H.
7—Stainless Steel Heat Exchangers, 400, 330, 40 & 8½ sq. ft.
1—Ball & Jewell #1½ Rotary Cutter, stainless steel.
3—Mikro Pulverizers #1-SH, #2-SI, #2-TH.
2—Bird 48" dia. Suspended Centrifugals Stainless Steel Perforated Basket, Plow, Bottom Discharge, 15 H. P. motor.
1—Fletcher 30" Jr. Centrifugal T304 S.S., solid basket.
1—Sharples #16 Super Centrifuge, Stainless Steel.
4—DeLaval Centrifugal Oil Purifiers, models 600, 74-11 and 94-01.
1—Feinc Rotary Vacuum Filter, 4'6" dia. x 6' face, aluminum.
2—Sweetland Filters, #10, & #12.

PERRY EQUIPMENT CORP.

1407 N. 6th ST., PHILADELPHIA 22, PA.

GO WEST-BUY BEST

Bird Continuous Centrifugal 36x72 steel.
Steadman Rot Crusher, 28x13 feed opng.
Stokes 2 Drum Dryer, 48x108; all equip.
Buflovak 2 Drum Dryer, 42x120; all equip.
Rot Dryer, 6'x50', ⅜" shell; 25 HP dr.
Cherry-Burrell Flash Pastzr; 25 S.S. pl.
Shriver 30x30 Fltr Press, 38 pl & 37 fr.
Sperry 36x36 Fltr Pr 46 pl 47 fr hydr.
Kelley Filter 40x108, 8 lvs 250 sq. ft.
Oliver Precoat Fltr 3x4; br new ex pf.
Elmco 6'x8' Rot Vac Filter; wood drum.
Swenson 4'x1' Rot Vac Filter; salt type.
Sweetland #7 Filter 42 iron lvs 2" cent.
Cherry-Burrell 200 Gal. Viscolizer 7½ HP.
Dopp Agit Jacktd Kettle, 56" dia. 34" deep.
500 Gal. copper Jktd Kettle, 54" dia. 44".
Knapp Labeler, adj to & incl #10 cans.
Rietz RD-12 Disintegrator, 30 HP 3600 RPM.
Rietz RD-18 Disintegrator 100 HP 1800.
Moore 4x5 Ball Mill, 15 HP Gearhd motor.
J B 40 HP Hammermill, Hpr & ind screw.
Blystone 50 Gal. Horizontal Paste Mixer.
Calif. S.S. Screw Presses, 4" screw (3).
Oliver Hydraulic slurry acid Pump.
Roots Connersville 4x9 Rot liquid Pump.
Worth Vac Pump, 18"x9", up to 27" Vac.
Rotex #52 Sifter, 2 deck, 5'x10', 5 HP.
Abbe Bluttergess Turbine Sifter, 3 HP.
ADT Rotary Trommel Screen 3'x12', 2 HP.
Mixing Tank, 5'5"x9'3", Jktd for 125# pres.
S.S. open Mixing Tank, 8'x10' str side.
3 Acme Cprsmithg Cpr Vac Pans, 6'x7'.

We'll Buy Your Surplus Equipment, Too!

MACHINERY AND EQUIPMENT CO.

514 BRYANT STREET SAN FRANCISCO 7, CALIF.

FOR SALE

Pebble Mills: 5 gal. to 250 gal.
Pulverizers: Micro SH, 1SI, 2TH.
Vacuum Pans: 6' stain. steel, 5' copper.
Powder Mixer: Day, 66 cu. ft., jktd.
Clarifiers: Sharples Vaportite st. steel.
Centrifugals: 26" and 30" Tolhurst.
Mixer: Read dbl. arm, 380 gal., st. steel.
Disintegrator: Rietz 40 hp.
Clarifiers: De Laval 84-SI, motor dr.
Filter: Oliver 3'x4', Everdur, con.
Vacuum Pumps: Nash AL-6 and H5.
Press: Davenport 3-A, Durimet con.
Mill: 12x24" Farrel-Birmingham, 25 hp.
Dryer: American 42x120" double drum.
Vacuum Pan: Stokes 25 gal. st. steel, jacktd.
Powder Mixers: 100 to 2,000 lbs.
Filter Presses: 7" to 24", Sperry, Shriver.
Colloid Mills: Premier, Charlotte—st. steel.
Tanks: 3,000 gal. vert. dairy gl. lined jktd.

LOEB EQUIPMENT SUPPLY CO.

1925 W North Ave. Chicago 22, Ill.

FMC

STAKE YOUR CLAIM TO CHOICE EQUIPMENT

3295 E5	Stainless 5 Gal. Jktd. Mixer; double arm with Vacuum Cover.
2337	W.&P. Type Jacketed 100 Gal. Double Arm Mixers.
3427	Lancaster Muller Type Mixer EAG4, complete.
3585	Robinson Stainless Ribbon Mixer; 8"x24"x 28".
3479	Stainless Bubble Cap Column; 16 section; 8¾"x19".
3382	Rotary Vacuum Dryer; 52"x10'2" with accessories; 10 HP.
3026	Buffalo Chrome Plated Rot, Vac. Drum Dryer; 5'x12'.
348783	Tolhurst 40" Everdur Centrifugal; plow discharge; 2 speed motor.
3240 M3	Sharples S6 Super-Centrifuge with 3 HP motor.

FRED R. FIRSTENBERG, Pres.

FIRST MACHINERY CORP.

157 Hudson Street
New York 13 N Y.

QUALITY EQUIPMENT PRICED RIGHT

DRYERS

3'x15', Rotary, Vacuum, jacket'd., SS clad.
Double drum, 32"x72".
Spray, 16'x20'.
Stokes, Rotary, Vacuum, 30"x8', complete.
Blaw-Knox 5'x6' Atmos. single drum.
Proctor & Schwartz, 24"x28'9" Conveyor.
Proctor & Schwartz, 8'x94' SS Conveyor Dryer.
Proctor & Schwartz, 6'x40' Conveyor Dryer.

FILTERS

11'6"x18' Oliver, all steel.
8'x12' Feinc, all steel.
8'x10' Oliver, wood & steel (3).
8'x8' Oliver, lead covered.
5'3"x4' Oliver, steel.
4'x5' Oliver, SS & wood.
3'x4' Oliver, steel.
#7 Sweetland, 2" spacing, 28 leaves.
36", 35 chambers, center feed, open.
12" Sperry, aluminum chambers.

KETTLES—REACTORS

2000 gal. agit., jackt'd., 200 PSI (3).
1300 gal. 6'x6', 60 PSI, U69, SS.
1000 gal. 54"x7'x¾", 300 PSI.
500 gal. Pfaudler, type LL.
400 gal. Pfaudler, jackt'd., agit.

KILNS—COOLERS—DRYERS

10'x90'x9/16" Allis-Chalmers.
8'x80'x¾" Vulcan.
7'6" & 6'6"x120'x⅜" (3).
7'x160'x⅜" (2).
7'x120'x⅜" (2).
7'x60'x⅜" with lifters.
6'x60'x⅜".
6'x27' Louisville, 4½" SS tubes.
502-20 Rota-Louvre.
5'x67'x5/16" with lifters.
5'x30'x⅜" Ruggles Cole.
4'6"x50'x¼" with lifters.
4'6"x40'x¾".
4'x35'x½" with burner.

TANKS & PRESSURE VESSELS

135,000 gal. 30'x26' with coils.
30,000 gal. 10'x47' ASME, 50 PSI.
16,000 gal. 96"x45'x¼" WP 150 PSI, ASME.
15,000 gal. 10'6"x23'x¼" (NEW).
13,500 gal. vert. 8'x36'x⅜" (NEW).
12,000 gal. 8'x32'x¼" or 5/16" (NEW).
8,500 gal. vert. 8'x23'x5/16" (NEW).
8,200 gal. 70"x40'x2" 390 PSI (4).
6,000 gal. 8'x15'x⅜" aluminum (2).
4,100 gal. vert. 5'x28'x¼" (NEW).
3,400 gal. 7'4"x10'x⅜", type 430 SS.
1,250 gal. 4'x14', 106 PSI.
1,200 gal. 42"x16'8"x5/16", 125 PSI.
1,050 gal. 4'x12'x½", 106 PSI.
480 gal. 4'x3', wood (UNUSED).
6,500 gal. TANK CAR TANKS.

MISCELLANEOUS

S. S. BUBBLE CAP COLUMN, 6'x29'.
RUBBER LINED TOWER, 24"x94".
FULLER ROTARY COMPRESSOR, C80.
BRAUN HEAT EXCH., 1035 sq. ft., 250 PSI.
SCRAPER CONDENSER, ALUMINUM, 8'x15'.
APRON CONVEYOR, 3'x34'.
FULLER KINYON PUMP 5".
S. S. RIBBON CONVEYOR, 16".
RAYMOND #1 PULVERIZER.
DIGESTERS, 3900 gal. ASME 75 PSI.
FLAKER, BLAW KNOX, 5'x6'.
KOMBINATOR, S. S. Model 200.
MAGNETIC BELTS, 30"x7'5".
DAY, 3 ROLL MILL, 16"x40".
PADDLE MIXER, double shaft, 1050 gal.
DAYTON MIXER, Model 422, 100 gal.
POWDER MIXER, 2200 cu. ft.
COLTON PRESSES, Model 200RP.
NATIONAL TRANSIT PUMPS, 6x6x18.
VACUUM RECEIVERS, 4'x54".
STILL, 600 gal., copper, 100 PSI.
PACKAGE MACHINE WRAPPER, Model N4.
MERRICK WEIGHTOMETER, 20 T.P.H.

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MACHINERY & EQUIPMENT MERCHANTS

LIQUIDATION SALE

MUST MOVE MACHINERY IMMEDIATELY

Glass and Copper lined tanks, rotary dryers, condenser, mash-press, water demineralizer, gin still, brand new recording thermometers.

Property has been sold and we must remove this equipment AT ONCE. That makes this your unequalled opportunity to buy excellent, well-maintained equipment at SACRIFICE PRICES.

Write or phone now for prices on the items that interest you. Inquiries promptly answered.

4 Pfaudler Glass lined sectional tanks. Painted aluminum.
3—8'6" dia. x approx. 14' high—6150 gal. cap.
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1 Steel tank—constructed of 7 ring sections 3½ feet high each—total dimensions 8'6" dia. x 24' high. Approx. cap. 11,875 gals. painted aluminum.

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Oil, Paint and Drug Reporter, 30 Church Street, New York 7, N.Y.

Price Control Study

—Continued from page 3

increases, but very difficult to translate cost decreases into price decreases."

He described the amendments to the price control law made by congress earlier this year as "special interest amendments," and said that congress should make everyone share an equal burden under the law. He predicted that the next congress will pass a direct control bill, and promised to submit some recommendations in this regard, if asked.

The report of the joint committee on defense production appeared in some respects to share the viewpoint of Mr. Woods on the ineffectiveness of the 1952 amendments to the price control law, but the burden of the comments of the committee was that the whole economic picture has so changed since the time the price control law was enacted that direct controls over prices now appear questionable. The report said:—

"Two years ago the country's security was seriously threatened. Inflationary forces were rampant. The value of the dollar was dropping rapidly. Industrial leaders and businessmen were gravely concerned. All were trying to build inventories. Prices were rising sharply. Consumers were rushing to beat prices and shortages and all the time were being squeezed more and more by their own actions.

Changed Situation Noted

"Fortunately, the situation has vastly changed today. True, we still face a common foe with the rest of the free world—the communist menace. But the nation's industrial capacity is greatly expanded. Defense factories are in high gear. The domestic economy is far stronger. People have more money and are spending it. There is now a good supply of all important types of consumer goods available.

"It was not, however, until the government took positive action in early 1951 to stop the spiraling price rise that stability started to be restored. While price controls alone did not accomplish the entire job, they were the major factor in convincing both business and consumers that the hectic price rises had been halted so that indirect controls could become effective."

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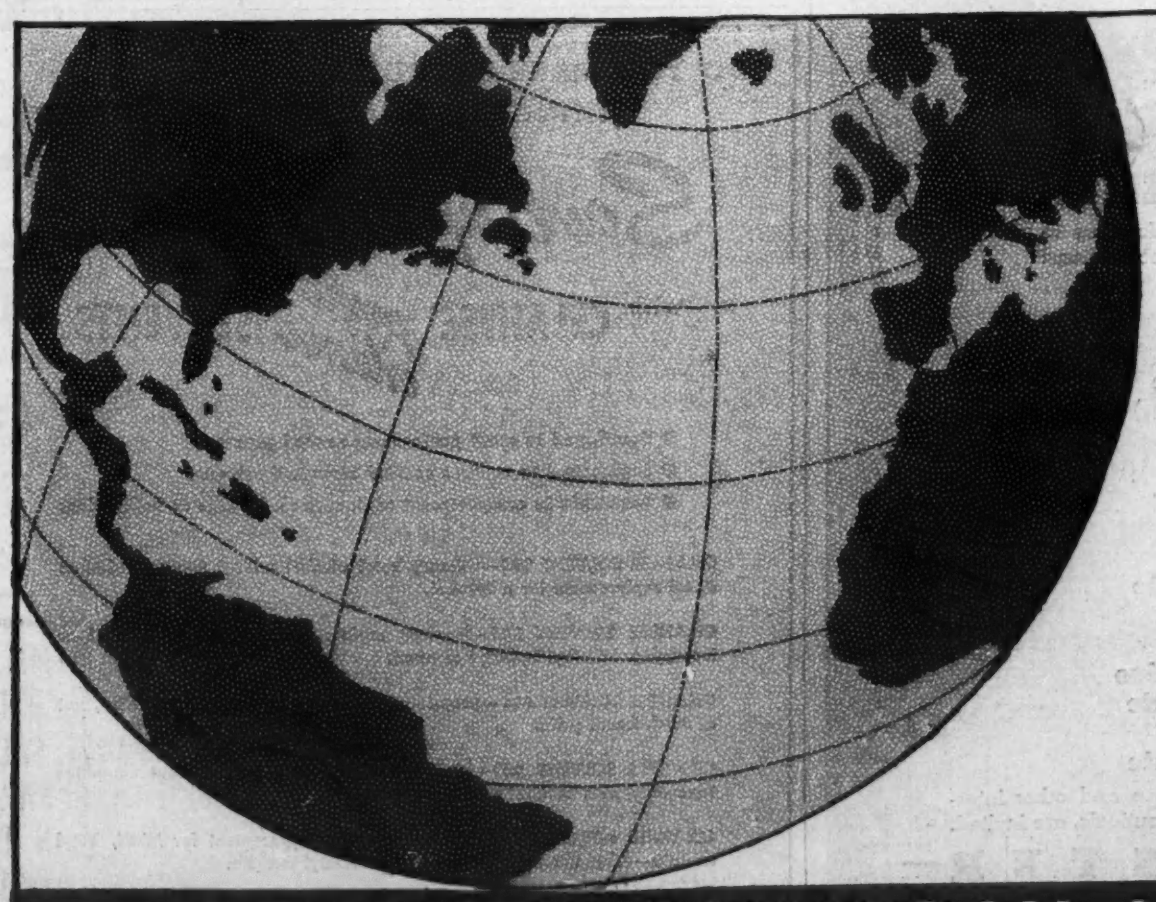

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